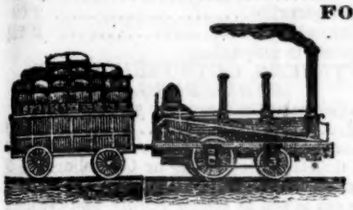
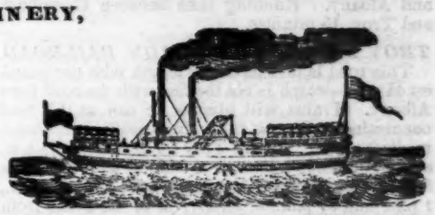
AMERICAN RAILROAD JOURNAL,

AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY, AND MINES.



ESTABLISHED 1831.



PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT FIVE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. II., No. 41.] SATURDAY, OCTOBER 10, 1846. [WHOLE No. 538, VOL. XIX.

BOSTON AND PROVIDENCE RAILROAD. Passenger Notice. Summer Arrangement. On and after Monday, April 6, 1846, the Passenger Trains will run as follows:

For New York—Night Line, via Stonington. Leaves Boston every day, but Sunday, at 5 p.m.

Accommodation Trains, leave Boston at 7½ a.m. and 4 p.m., and Providence at 8 a.m. and 4½ p.m.

Dedham trains, leave Boston at 8 a.m. 12½ m., 3½ p.m., and 6½ p.m. Leave Dedham at 7 a.m. and 9½ a.m. and 2½ and 5½ p.m.

Stoughton trains, leave Boston at 11½ a.m. and 5½ p.m. Leave Stoughton at 7·20 a.m. and 3½ p.m.

All baggage at the risk of the owners thereof.

31 1y W. RAYMOND LEE, *Sup't.*

BRANCH RAILROAD and STAGES connecting with the Boston and Providence Railroad.

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

NORWICH AND WORCESTER RAILROAD. Summer Arrangement, commencing Monday, April 6, 1846.

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4½ p.m. Leave Worcester, at 10 a.m., and 4½ p.m.

☞ The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 1½ p.m. train from Boston.

New York Train via Long Island Railroad:

Leave Allyn's Point for Boston, about 1 p.m., daily, except Sunday.

Leave Worcester for New York, about 10 a.m., stopping at Webster, Danielsonville, and Norwich.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the stamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 4½ p.m., daily, except Sunday, stopping at Webster, Danielsonville and Norwich.

Freight Trains daily each way, except Sunday.—Special contracts will be made for cargoes, or large quanties of freight, on application to the superintendent.

☞ *Fares are Less when paid for Tickets than when paid in the Cars.* ☜

32 1y J W. STOWELL, Sup't.

BOSTON AND MAINE RAILROAD. Upper Route, Boston to Portland via, Reading, Andover, Haverhill, Exeter, Dover, Great Falls, South & North Berwick, Wells, Kennebunk and Saco.

Summer Arrangement, 1846.

On and after April 13, 1846, Passenger Trains will leave daily, (Sundays excepted,) as follows:

Boston for Portland at 7½ a.m. and 2½ p.m.

Boston for Great Falls at 7½ a.m., 2½ and 4½ p.m.

Boston for Haverhill at 7½ and 11½ a.m., 2½, 4½ and 6 p.m.

Boston for Reading at 7½, 9, and 11½ a.m., 2½, 4½, 6 and 8 p.m.

Portland for Boston at 7½ a.m., and 3 p.m.

Great Falls for Boston at 6½ and 9½ a.m., and 4½ p.m.

Haverhill for Boston at 6½, 8½, and 11 a.m., and 4 and 6½ p.m.

Reading for Boston at 6½, 7½ and 9½ a.m., 12 m., 1½, 5 and 7½ p.m.

The Depot in Boston is on Haymarket Square.

Passengers are not allowed to carry Baggage above **$50** in value, and that *personal* Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every **$500** additional value.

1y31 CHAS. MINOT, *Super't.*

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.

On and after Friday, May 1st, 1846, the cars will run as follows:

Leave City Hall for Yorkville, Harlem and Morrianna, at 7, 8, 9, 10 and 11 a. m., and at 1, 2, 3 30, 4 30, 5, 6, and 6 30 p. m.

Leave City Hall for Fordham and Williams' Bridge, at 7, 10 and 11 a. m., and at 2, 3 30, 5, and 6 30 p. m.

Leave City Hall for Hunt's Bridge, Bronx, Tuckahoe, Hart's Corners and White Plains, at 7 and 10 a. m., and at 2 and 5 p. m.

Leave Harlem and Yorkville, at 7 10, 8 10, 9, 10, 11 10 a. m., and at 12 40, 2, 3 10, 5 10, 5 30, 6 10, and 7 p. m.

Leave Williams' Bridge and Fordham, at 6 45, 7 45, and 10 45 a. m., and at 12 15, 2 45, 4 45, and 5 45 p. m.

Leave White Plains, at 7 and 10 a. m., and at 2 and 5 p. m.

The freight train will leave the City Hall at 1 o'clock, p. m., and leave White Plains at 1 o'clock in the morning.

On Sundays, the White Plains train will leave the City Hall at 7 a. m. and 5 30 p. m.; will leave White Plains at 7 a. m. and 6 p. m.

On Sundays, the Harlem and Williams Bridge trains will be regulated according to he state of the weather. 1y18

SUMMER ARRANGEMENT.—NEW YORK AND ERIE RAILROAD LINE, from April 1st until further notice, will run daily (Sundays excepted) between the city of New York and Middletown, Goshen, and intermediate places, as follows:

FOR PASSENGERS—

Leave New York at 7 A.M. and 4 P.M.
" Middletown at 6½ A.M. and 5½ P.M.

FARE REDUCED to $1 25 to Middletown—way in proportion. Breakfast, supper and berths can be had on the steamboat.

FOR FREIGHT—

Leave New York at 5 P. M.
" Middletown at 12 M.

The names of the consignee and of the station where to be left, must be distinctly marked upon each article shipped. Freight not received after 5 P. M. in New York.

Apply to J. F. Clarkson, agent, at office corner of Duane and West sts. H. C. SEYMOUR, Sup't.

March 25th, 1846.

Stages run daily from Middletown, on the arrival of the afternoon train, to Milford, Carbondale, Honesdale, Montrose, Towanda, Owego, and West; also to Monticello, Windsor, Binghamton, Ithaca, etc., etc. Agent on board. 13 tf

BOSTON AND ALBANY.—WESTERN RAILROAD.—Fare Reduced.

1846..Spring Arrangement..1846

Commencing April 1st.

Passenger trains leave daily, Sundays excepted—

Boston	7½ p. m. and	4 p. m.	for Albany.
Albany	6½ " and	2½ "	for Boston.
Springfield	7 " and	1 "	for Albany.
Springfield	7 " and	1½ "	for Boston.

Boston, Albany and Troy:

Leave Boston at 7½ a. m., arrive at Springfield at 12 m., dine, leave at 1 p. m., and reach Albany at 6½ p. m.

Leave Boston at 4 p. m., arrive at Springfield at 8 p. m., lodge, leave next morning at 7, and arrive at Albany at 12½ m.

Leave Albany at 6½ a. m., arrive at Springfield at ½ m., dine, leave at 1½ p. m., and arrive at Boston 6½ p. m.

Leave Albany at 2½ p. m., arrive at Springfield at 8½ p. m., lodge, leave next morning at 7, and arrive at Boston at 12 m.

The trains of the Troy and Greenbush railroad connect with all the above trains at Greenbush.

Fare from Boston to Albany, $5; fare from Springfield to Boston or Albany, $2 75.

Merchandize trains run daily (Sundays excepted) between Boston, Albany, Troy, Hudson, Northampton, Hartford, etc.

For further information apply to C. A. Read, agent, 27 State street, Boston, or to S. Witt, agent, Albany. JAMES BARNES,

Superintent and Engineer.

Western Railroad Office, Springfield, April 1, 1846. 14 1y

TROY RAILROADS.—IMPORTANT NOtice.—Troy and Greenbush Railroad, forming a continuous track from Boston to Buffalo and Saratoga Springs.

This road is new, and laid with the heaviest iron H rail. Trains will always be run on this road connecting at Greenbush each way with the trains to and from *Boston* and intermediate places, leaving Greenbush daily at 1½ p.m. and 6 p.m., or on arrival of the trains from Boston; leave Troy at 7½ a. m. and 4½ p.m., or to connect with trains to *Boston*

Trains also run hourly on this road between Troy and Albany. Running time between Greenbush and Troy, 15 minutes.

TROY AND SCHENECTADY RAILROAD.

This road is laid its entire length with the heaviest H rail—which is not the fact with the road from Albany. Trains will always be run on this road connecting each way, to and from Buffalo and intermediate places. Leave Troy for Buffalo at 7½ a.m. and 1 p.m. and 6½ p.m., or to connect with the trains for the west; leave Schenectady at 2½ a.m., 8½ a.m., 1 p.m. and 3½ p.m., or on arrival of the trains from Buffalo and intermediate places.

TROY AND SARATOGA RAILROAD.

THE ONLY DIRECT ROUTE.

No change of passenger, baggage or other cars on this route. Cars leave Troy for Ballston, Saratoga Springs, Lake George and White Hall at 7½ a.m., (arriving one hour in advance of the train from Albany,) and at 3½ p.m. Returning, leave Saratoga at 9 a.m. and 3½ p.m., (reaching Troy in time for the evening boats to New York.) Cars also leave Troy for the Burrough at 3½ p.m. and 7 p.m., connecting with packet boats for the north. This takes passengers from New York and Boston to Montreal in 44 hours.

N.B. Travellers will find the routes through Troy most convenient and economical, and as expeditious as any other. The steamboats to and from New York land within a few steps of the railroad office, and passengers are taken up and landed by the different railroad lines at the doors of principal hotels, thus saving all necessity for, and annoyance from, hack drivers, cabmen, runners, etc.

Aug. 3, 1846. 1y 32

THE BEST RAILROAD ROUTE TO THE Lake and Buffalo, from Cincinnati.

Take Cars to Xenia, 65 miles; take Stage to Mansfield, 88 miles; thence by Cars to Sandusky, 56 miles to the Lake; thence Steamboat to Buffalo, 230 miles.

Fare from Cincinnati to Sandusky	$8 00
" " Sandusky to Buffalo, Cabin	6 00
" " " " " Steerage	4 50

Fare by this route, although the cheapest across the state, will be reduced in a short time, railroad lengthened, and speed increased.

Leave Cincinnati in the morning, arrive at Columbus at night.

Leave Columbus in the morning, arrive at Sandusky same day.

Leave Sandusky, by Boat, in the morning, arrive at Buffalo next morning in time for the Cars north and east for Niagara Falls, Canada, Saratoga Springs, Troy, Albany, Boston, New York, Washington, or Philadelphia.

Passengers should not omit to pay their fare through from Cincinnati to Sandusky, or from Columbus to Sandusky via Mansfield; as this route is the only one that secures 56 miles [this road is run over in 2h. 50m.,] most railroad which is new, and is the shortest, cheapest and most expeditious across the state.

Fares on the New York railroads are about to be reduced.

B. HIGGINS, *Sup't, etc.*
M. & S. C. R. R. Co.

Sandusky, Ohio.

RAILROAD IRON.—THE "MONTOUR Iron Company," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO., *Agents.*

Corner of Cedar and Greenwich Sts. 48 1y

NEW RAILROAD ROUTE FROM BUFfalo to Cincinnati.

Passengers destined for Columbus and Cincinnati, O., Louisville, Ky., St. Louis, Mo., Memphis, Tenn., Vicksburg, Natches, New Orleans, and all intermediate ports, will find a new, and the most expeditious and comfortable Route, by taking Steamboats at Buffalo, landing at Sandusky City, Ohio, distance ..... 230 miles.

From thence by Cars, over the Mansfield Railroad which is new and just opened [laid with heavy Iron,] to Mansfield, distance	56 "
Thence by Stage via Columbus to Xenia over gravel and Macadamized Road, (the best in the state,) in new coaches, distance	88 "
Thence, over the Little Miami Railroad, from Xenia to Cincinnati, distance	65 "

TIME.

From Buffalo to Sandusky	24 hours.
Leave Sandusky 5 a.m. to Columbus	14 "
From Columbus to Cincinnati	15 "

Or say 30 hours from Sandusky to Cincinnati over this route, including delays.

FARE.

From Buffalo to Sandusky, Cabin	$6 00
" " " " Steerage	3 00
" Sandusky to Columbus	4 50
" " *through* to Cincinnati	8 00

Passengers should not omit to pay their fare *through* from Sandusky City to Cincinnati and take receipts availing themselves of the benefit of a contract existing between the said Railroad and Stage Co's, securing 121 miles travel by good Railroad and 88 miles by Stage, in crossing from Lake Erie to the Ohio river, in the space of 30 hours.

Passengers destined for St. Louis, or any point below on the Mississippi, will save by taking this route, from 4 to 6 days time and travel, and nearly half the expense, over the Chicago and Peoria route to the above places.

Fare by this route, although the cheapest, will in a short time be reduced, Railroad lengthened, and speed increased.

B. HIGGINS, *Sup't, etc.*
M. & S. C. R. R. Co.

Sandusky City, Ohio.

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry — with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points $7, and 4 cents per mile for less distances. Fare through to Wheeling $11 and time about 36 hours, to Pittsburgh $10, and time about 32 hours. Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13y1

THE SUBSCRIBER IS PREPARED TO execute at the Trenton Iron Works, orders for Railroad Iron of any required pattern, and warranted equal in every respect in point of quality to the best American or imported Rails. Also on hand and made to order, Bar Iron, Braziers' and Wire Rods, etc., etc.

PETER COOPER, 17 Burling Slip.
1y10 New York.

BALTIMORE AND SUSQUEHANNA Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger trains run daily, except Sunday, as follows:

Leaves Baltimore at	9 a.m. and 3½ p.m.
Arrives at	9 a.m. and 6½ p.m.
Leaves York at	5 a.m. and 3 p.m.
Arrives at	12½ p.m. and 8 p.m.
Leaves York for Columbia at	1½ p.m. and 8 a.m.
Leaves Columbia for York at	8 a.m. and 2 p.m.

FARE.

Fare to York	$1 50
" Wrightsville	2 00
" Columbia	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg	$9
Or via Lancaster by railroad	10
Through tickets to Harrisburg or Gettysburg	3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at ..... 5½ p.m.
Returning, leaves Owing's Mills at ..... 7 a.m.

D. C. H. BORDLEY, *Sup't.*
31 1y Ticket Office, 63 North st.

LEXINGTON AND OHIO RAILROAD. Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare $1·25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and ma. 9. from Frankfort, other hours as above.

351y

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily	$26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia	22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

1y25 JOHN KING, Jr, *Agent.*

CENTRAL RAILROAD—FROM SAVANnah to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, $8 00. Freight—

On weight goods generally	50 cts. per hundred.
On measurement goods	13 cts. per cubic ft.
On brls. wet (except molasses and oil)	$1 50 per barrel.
On brls. dry (except lime)	80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery	40 cts. per hundred.
On hhds. and pipes of liquor, not over 120 gallons	$5 00 per hhd.
On molasses and oil	$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE,
y40 Gen'l. Sup't. Transportation.

MANUFACTURE OF PATENT WIRE Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by JOHN A. ROEBLING, *Civil Engineer,* Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railrord, has now run 4 seasons, and is still in good condition. 2v19 1y

CENTRAL AND MACON AND WESTERN Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

	Miles.
Savannah to Macon—Central Railroad	190
Macon to Atlanta—Macon and Western	101
Atlanta to Oothcaloga—Western and Atlaniic	80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

	To Atlanta.	To Oothcaloga.
On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings	$0 50	$0 75
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones	0 50	0 62½
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot	0 20 pr. 100 lbs.	35
Crockery, per cubic foot	0 15 " "	35
Molasses and Oil, per hhd., (smaller casks in proportion).	9 00	12 50
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each	1 25	1 50
Ploughs, (small,) and Wheelbarrows	0 80	1 05
Salt, per Liverpool Sack	0 70	0 95

Passage—Savannah to Atlanta, $10; Children, under 12 years of age, half price, Savannah to Macon, $7.

☞ Goods consigned to the subscriber will be forwarded free of Commissions.

☞ Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, *Forwarding Agent, C. R. R.*
Savannah, Aug. 15th, 1846. 1y34

LITTLE MIAMI RAILROAD.—1846.— Summer Arrangement.

Two passenger trains daily.

On and after Tuesday, May 5th, until further notice, two passenger trains will be run—leaving Cincinnati daily (Sundays excepted) at 9 a. m. and 1½ p. m. Returning, will leave Xenia at 5 o'clock 50 min. a. m., and 2 o'clock 40 min. p.m.

On Sundays, but one train will be run—leaving Cincinnati at 9, and Xenia at 5 50 min. a. m.

Both trains connect with Neil, Moore & Co.'s daily line of stages to Columbus, Zanesville, Wheeling, Cleveland, Sandusky City and Springfield.

Tickets may be procured at the depot on East Front street.

The company will not be responsible for baggage beyond fifty dollars in value, unless the same is returned to the conductor or agent, and freight paid at the rate of a passage for every $500 in value above that amount.

W. H. CLEMENT,
19 Superintendent.

GREAT SOUTHERN MAIL LINE! VIA Washington city, Richmond, Petersburg, Weldon and Charleston, S. C., direct to New Orleans. The only Line which carries the Great Southern Mail, and Twenty-four Hours in advance of Bay Line, leaving Baltimore same day.

Passengers leaving New York at 4½ P.M., Philadelphia at 10 P.M., and Baltimore at 6½ A.M., proceed without delay at any point, by this line, reaching Richmond in *eleven*, Petersburg in *thirteen and a half hours*, and Charleston, S. C., in *two days* from Baltimore.

Fare from Baltimore to Charleston.....$21 00
" " " Richmond..... 6 60

For Tickets, or further information, apply at the *Southern Ticket Office*, adjoining the *Washington Railroad Office*, Pratt street, Baltimore, to
ly14 STOCTON & FALLS, Agents.

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES. AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO OOTHCALOGA, 80 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 388 miles in length, from Charleston to Oothcaloga on the Oostenaula River, in Cass Co., Georgia.

RATES OF FREIGHT.		Between Augusta and Oothcaloga. 250 miles.	Between Charleston and Oothcaloga. 386 miles.
1st class.	Boxes of Hats, Bonnets, and Furnature, per cubic foot	$0 16	$0 25
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	0 90	1 40
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Bar and Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 55	0 80
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Feathers, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc	0 37½	0 62½
	Cotton, per 100 lbs.	0 45	0 65
	Molasses, per hogshead.	8 50	
	" " barrel.	2 00	
	Salt per bushel	0 17	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows	0 75	

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight may be paid at Augusta, Atlanta, or Oothcaloga.

J. EDGAR THOMSON,
Ch. Eng. and Gen. Agent.
Augusta, Sept. 2d, 1846. *44 1y

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tuscumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.
Atlanta, Georgia, April 16th, 1846. 1y1

MARAMEC IRON WORKS FOR SALE. By Authority of a power of Attorney from Messrs. Massey and James, I will sell at Public Auction, at the Court House in the city of St. Louis, on *MONDAY, the 2nd day of November next*, the above named valuable IRON WORKS—together with **8,000** ACRES OF LAND, more or less, on which there are several *valuable and productive Farms* open and in cultivation.

The Maramec Iron Works are situated at the Maramec Big Spring, in Crawford Co., Mo., and consist of **1** BLAST FURNACE; **1** AIR FURNACE; **1** REFINING FORGE, with large Hammer for making Blooms and Anchonies; **2** CHEFFERY FORGES for Drawing Bar Iron; **1** ROLLING MILL for Rolling Blooms into Bars and Plates; **1** SAW AND **1** GRIST MILL,

All within 300 Yards of the head of the spring. There are 2 large frame Coal Houses, and all other Buildings necessary, such as Shops and Houses for the workmen.

This Spring is one of the largest in Missouri, discharging at the lowest time 7,000 cubic feet of water per minute. The Ore Bank from which the Ore has been heretofore taken is about 600 yards from the furnace; it is the *Specular Iron Ore*, the best for making Bar Iron, and the quantity inexhaustible.—It is an Iron Mountain, 400 feet above the level of the Maramec River; the ore is entirely uncovered, and there is an easy descent and a good road from it to the furnace.

The lands have been carefully selected by one of the owners with a view to the interest and convenience of the Works, and are situated principally on the Maramec River and its tributaries, embracing the best bottom lands and water powers. The following detatched tracts, comprized in the above quantity, were selected for the advantages they possess

183¼ ACRES in T. 40 N. of R. 8 W. in Sec. 3, near Wherry's Mill, in Osage Co.; entered to secure a very valuable Mill power on the Branca Spring and a good landing on the Gasconade River.

80 ACRES on Benton's Creek, 12 miles from the Works; entered to secure an extensive and valuable Ore Bank 2½ miles from the Maramec, at a point where there is ample water power.

320 ACRES in T. 38 N. of R. 4 W. in Sec. 22 and 28, affording an extensive and valuable water power on the Maramec river.

160 ACRES in T. 37 N. of R. 3 W. in Sec. 4, embraces two inexhaustible and valuable Ore Banks and is 1½ miles from Water power sufficient for a furnace and Grist Mill, and is distant 6 miles from the above site on the Maramec.

80 ACRES in T. 37 N. of R. 8 W. in Sec. 33, including an extensive bank of excellent Ore, and distant 1½ miles from water power on the waters of the Gasconade River, in Pulaski Co., sufficient for Furnace and Mills. All those Banks are of the same kind as the one at the Works, and deemed inexhaustible.

1 LOT, containing nearly one Acre, on the South Bank of the Missouri River, 4 Miles above the town of Hermann, purchased for a warehouse and landing, and is one of the best landings on the River.

The lands above described are well timbered, and have been selected with a view to have an ample supply of wood and coal, for fences, building and other purposes. There are on the land valuable quarries of Limestone well adapted for Fluxes for the Ore, and also good quarries of Rock suitable for building. There are also on the land a great number the finest kind of Springs. A large portion of the lands are bottoms well adapted to the production of Corn and other crops. The Works are situated in a very pleasant and healthful part of the country. The Maramec ore is believed to be admirably adapted to the manufacture of steel.

A further description of the property at this time is considered unnecessary, as those wishing to purchase will no doubt view the property, which will be shown by the Agent, residing at the works.

The terms of payment required will be one-third of the purchase money in hand and the balance in three equal annual payments, secured by mortgage on all the property.

A more particular description of the property will be given, and further conditions of the sale made known, on the day of sale.

JNO. F. ARMSTRONG, Agent.
St. Louis, June 6, 1846.

☞ The Louisville, (Ky.,) Journal, Cincinnati Gazette, Tribune (Portsmouth, O.,) Nashville Whig, Pittsburg Gazette, National Intelligencer, United States Gazette, (Phila.) Railroad Journal (N. Y.,) acd Boston Atlas, will publish the above once a week until the 20th day of October next, and send bills to this office for settlement, and *mark price on first paper.* 18t25

BACK VOLUMES OF THE RAILROAD JOURNAL for sale at the office, No. 23 Chambers street

GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1¼ in. to 2½ in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions. 1y1

VALUABLE PROPERTY ON THE MILL Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 fe. with lathes, work benches,

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side o Parker st., containiug 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia. ja4

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. ANDREW C. GRAY,

a45 President of the Newcastle Manuf. Co.

NEW YORK AND ERIE RAILROAD Company Notice. The Stockholders of the New York and Erie Railroad Company are hereby notified, that the annual election for Directors of the company will be held at the office, No. 45 Wall st., in the city of New York, on Tuesday, the 15th day of October next, from 10 o'clock, A.M., to 3 o'clock, P.M.

The Transfer Books will be closed from the 22d of September until the day after the election.

By order of the Board of Directors,

NATHANIEL MARSH, Secretary.

New York, September 12, 1846. 4t38

CUSHMAN'S COMPOUND IRON RAILS etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc. —respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having the use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer*,
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applicaitons must be post paid.

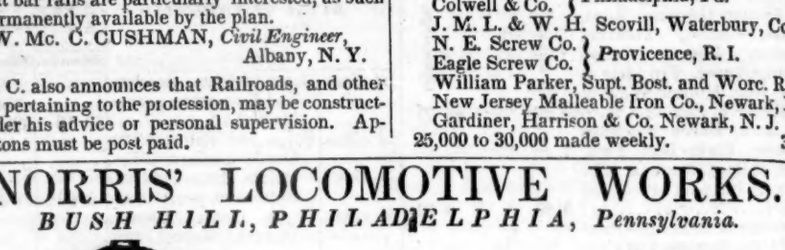
KEARNEY FIRE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

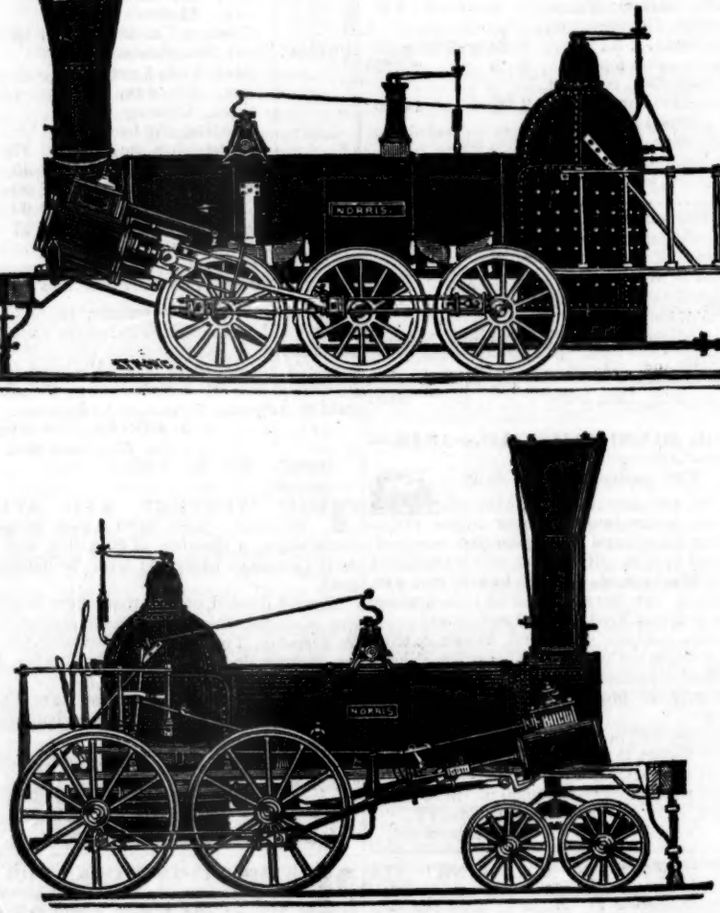
James P. Allaire,
Peter Cooper,
Murdock, Leavirt & Co. } New York.
J. Triplett & Son, Richmond, Va.
J. R. Anderson, Tredegar Iron Works, Richmond, Va.
J. Patton, Jr.
Colwell & Co. } Philadelphia, Pa.
J. M. L. & W. H. Scovill, Waterbury, Con.
N. E. Screw Co.
Eagle Screw Co. } Provicence, R. I.
William Parker, Supt. Bost. and Worc. R. R.
New Jersey Malleable Iron Co., Newark, N. J.
Gardiner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly. 35 1y

NORRIS' LOCOMOTIVE WORKS.

BUSH HILL, PHILADELPHIA, Pennsylvania.





MANUFACTURE their Patent 6Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15	inches	Diameter of	Cylinder,	× 20	inches	Stroke.
"	2,	14	"	"	"	× 24	"	"
"	3,	14½	"	"	"	× 20	"	"
"	4,	12½	"	"	"	× 20	"	"
"	5,	11½	"	"	"	× 20	"	"
"	6,	10½	"	"	"	× 18	"	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

Georgia Railroad and Banking Company. Annual Report.

The following statistics of the Georgia Railroad and Banking Company, which are referred to in the engineer's report, were unavoidably omitted in last week's Journal.

Statement of the expenses incurred for working the Georgia Railroad from April 1, 1845, to April 1, 1846.

CONDUCTING TRANSPORTATION.		
Stationery, printing, etc	$1,298 45	
Loss and damage	775 87	
Incidentals	1,246 42	
Oil and tallow	450 60	
Provisions, clothing, doctors' bills, etc., for negroes	3,658 23	
Expenses of Warrenton branch	620 36	
Expenses of horse car, Athens branch	1,189 99	
Wages of laborers and watchmen	5,370 15	
Agents and clerks	11,222 23	
Conductors	4,981 49	
Repairs of depot building	539 71	
		$31,353 53
MOTIVE POWER.		
Expenses of water stations	3,167 21	
Incidentals	590 04	
Wood for locomotives	9,314 79	
Oil and tallow for engines	2,172 60	
Repairs of engines	8,515 07	
Engineers and firemen	9,672 09	
Provisions, clothing, doctors' bills, etc., for negroes	2,974 66	
		36,406 46
MAINTENANCE OF WAY.		
Mens' wages	19,075 40	
Superintendants and supervisors	3,375 00	
Provisions, clothing, doctors' bills, etc., for negroes	7,837 07	
Incidentals	351 36	
Tools	267 48	
Spikes	1,287 09	
Wooden rails and cross ties	16,710 43	
Repairs of bridges	459 64	
Repairs of Tilman track	1,430 03	
Repairs of culverts	480 14	
Division houses	148 18	
Work done by car factory	1,408 68	
" " machine shops	762 06	
		53,592 56
MAINTENANCE OF CARS.		
Repairs to sundry cars	12,401 19	
New cars to replace old ones worn out and condemned	2,450 00	
		14,851 19
		$136,203 74

Distances on the Georgia railroad between Augusta and Atlanta, from station to station, in miles and the nearest decimal.

Augusta to	Belair	10·1
"	Berzelia	20·8
"	Dearing	28·9
"	Thomson	37·5
"	Camak	46·9
"	Cumming	56·8
"	Crawfordville	64·3
"	Union Point	76·0
"	Greensboro'	83·1
"	Buckhead	95·5
"	Madison	103·3
"	Rutledge	112·1
"	Social Circle	119·3
"	Covington	129·9
"	Conyer's	140·3
"	Lithonia	146·7
"	Stone Mountain	155·2
"	Decatur	164·6
"	Atlanta	170·7
Camak to	Warrenton	3·7
Union Point to	Woodville	4·7
"	Maxey's	12·3
"	Lexington	22·1
"	Athens	38·4

Statement of the business of each station on the Georgia railroad for the year ending March 31, 1846.

	Passengers up & down.	Freight up.	Freight down.
Oothcaloga		$4,640 96	$194 08
Kingston		5,329 07	3,131 28
Cartersville		5,719 70	3,890 17
Ackworth		483 21	327 97
Marietta		7,914 54	2,214 05
Atlanta	$37,325 54	26,022 80	5,658 08
Decatur	469 00	1,305 82	792 69
Stone Mountain	423 50	651 08	428 71
Lithonia	70 00	353 66	410 50
Conyers'	70 00	367 77	394 00
Covington	9,509 50	15,918 91	8,634 10
Social Circle	1,416 00	2,170 59	2,207 56
Madison	3,666 78	7,525 69	13,398 36
Buckhead	122 50	164 07	1,096 51
Greensboro'	2,401 88	3,039 55	5,316 26
Athens	9,274 11	23,545 57	5,812 40
Lexington	760 00	1,882 87	3,689 93
Maxey's	227 25	962 78	2,482 31
Woodville	232 00	1,229 53	1,381 39
Union	2,163 26	350 08	809 07
Murden's	7 00		
Crawfordville	1,307 71	1,207 36	2,554 45
Cumming	2,052 25	1,048 75	3,211 70
Warrenton	3,274 44	1,886 10	3,231 82
Camak	492 90	285 14	1,059 47
Thomson	796 00	640 66	877 40
Dearing	186 75	112 71	123 65
Ben Verdery's	31 81		
Berzelia	258 50	125 61	500 11
Pepper Hill	75 32		
Belair	159 50	53 51	1,474 05
Lawrence's	30 75		
Way passeng'rs and freight	15,860 73		4,858 34
	$92,664 98	$114,938 09	$80,160 47

Statement of the aggregate amount of business done on the Georgia Railroad, from April 1, 1845, to April 1, 1846.

MONTHS.	Pas'grs.	Amount.	Freight up.	Bales cotton down.	Amount.	Up and down. Amount.	Mail.	Total.
April 1845	1,633½	$6,135 27	$9,855 18	8,446	$10,366 60	$20,221 78	$2,968 49	$29,325 54
May	1,582½	5,916 68	5,022 67	2,304	3,464 62	8,487 29	2,968 49	17,372 46
June	1,466	5,013 89	3,344 11	837	1,796 93	5,141 05	2,968 49	13,123 43
July	1,709	5,734 97	3,225 25	1,178	1,666 03	4,891 28	2,968 49	13,594 74
August	1,558½	5,178 67	3,583 91	790	1,046 19	4,629 10	2,968 49	12,776 26
September	2,091½	6,809 76	8,932 02	1,119	1,594 38	10,526 40	2,968 49	20,304 65
October	2,394½	9,610 18	14,101 11	4,676	5,680 23	19,781 34	3,310 15	32,701 67
November	1,970	8,250 40	10,598 86	7,082	8,870 97	19,469 83	3,310 15	31,030 39
December	2,539	9,631 76	8,295 21	9,693	12,624 80	20,920 01	3,310 15	33,861 92
January ..1846	2,343	9,682 73	7,128 99	7,105	9,916 01	17,045 00	3,310 15	30,037 89
February	2,102½	8,945 81	24,568 12	5,555	7,324 45	31,892 57	3,310 15	44,148 53
March	2,596½	10,549 03	16,283 65	8,036	10,950 92	27,234 57	3,310 15	41,093 76
Totals	23,986½	$91,459 15	$114,938 09	56,821	$75,302 13	$190,240 22	$37,671 87	$319,371 24

Numbers and names of engines.	Weight of each engine in tons and decimals.	Commencement of service.	Number of miles run by each engine from April 1, '45 to April 1, 1846.	Total number of miles run by each engine from beginning of service, to April 1, 1846.	Cost of rep'rs to each engine fm April 1, '45 to April 1, 1846.	Total cost of repairs and improvem'nts to each engine fm beginning of service to April 1, 1846.	Condition of engines.	Remarks.
1. Pennsylvania	11·40	May 5, 1837	24,336	188,731	$571 10	$5,404 42	In shop undergoing repairs and alterations.	
2. Georgia	11·59	May 5, 1837	27,127	121,197	1,315 91	6,706 85	In shop for repairs.	
3. Florida	11·40	Dec. 27, 1837		60,581		3,526 74		Sold to the state of Georgia.
4. Alabama	11·40	Jan. 12, 1838	10,824	152,054	701 19	5,937 21		Sold to the state of Georgia.
5. Louisiana	11·30	Feb. 2, 1838	33,585	163,275	626 56	6,828 38		
6. Tennessee	15·40	May 29, 1838	5,147	81,471	1,407 89	5,038 35	On road in complete order.	Altered to a 6-wheel connected engine.
7. Wm. Dearing	13·00	Nov. 6, 1838	16,923	109,190	538 38	4,915 10	In house in good order.	
8. Virginia	12·96	Dec. 24, 1838	6,021	77,928	490 61	5,260 25	In house in good order.	
9. Mississippi	13·00	Dec. 28, 1838	17,618	78,025	488 99	4,131 76	On road in good order.	
10. Kentucky	13·00	Mar. 24, 1839	18,602	90,843	610 41	4,879 63	On road in good order.	
11. Wm. Cumming	12·35	Dec. 14, 1839	4,584	17,459	45 60	1,740 68	On road in complete order.	
12. James Kamak	12·35	Dec. 23, 1839	5,073	46,038	226 50	2,888 11	In house in good order.	
13. Athenian	11·08	Jan. 3, 1845	15,635	19,745	697 14	718 14	On road in complete order.	
14. Cherokee	15·40	April 28, 1845	11,118	11,118	306 86	306 86	In shop for renewal driving wheels.	
15. South Carolina	15·68	Nov. 1, 1845	7,718	7,718	67 26	67 26	In house in good order.	
16. North Carolina	15·43	Nov. 4, 1845	7,558	7,558	52 55	52 55	On road in complete order.	
17. Eagle	13·00	Dec. 5, 1845	13,660	13,660	368 10	368 10	On road in complete order.	

Total amount as per above table	$319,371 24
Extra trips	739 45
Extra baggage, etc	337 33
Season tickets	237 00
Lots negroes	870 50
Freight between stations	4,858 34
Rents	417 65
	326,831 51
Deduct for Western and Atlantic railroad proportion	11,489 92
	$315,341 59

Statement of the condition of the Georgia R. Road and Banking company on Monday morning, April 6, 1846.

ASSETTS.

The road and its outfit...	$2,386,989 89		
Extension of road beyond Madison.....	811,206 85		
Materials for road.....	26,267 71		
J. E. Thomson, chief engineer and general ag't extension account.....	48,212 30		
		3,272,676 75	
Salaries, incidental charges and protests.....	10,452 22		
Interest account.....	27,648 42		
Road expenses.....	139,599 42		
		177,700 06	
Real estate for road.....	47,606 67		
Banking house and lot...	32,184 49		
Negroes	49,573 00		
		129,364 16	
Balances due by agents..	8,110 41		
Due by state of Georgia.	70,537 85		
Assets taken in compromise	64 63		
Stock in other institutions	16,790 00		
		95,502 83	
Discounted notes.....	130,806 60		
Discounted bills.....	42,150 06		
Bills receivable.....	25,824 05		
		188,780 71	
Notes of suspended banks [value].....	148 10		
Notes of banks in other states.....	8,851 50		
City of Augusta and Savannah, change bills..	57 18		
		9,056 78	
Due by banks in N. York, Philadelphia, Charleston, Savannah & Athens	29,359 35		
Notes of specie paying banks in Georgia.....	44,241 50		
Gold and silver coin in the vaults of the bank....	49,535 00		
		123,135 85	
Total assets.....			$3,996,217 20

LIABILITIES.

Capital stock.....		2,289,284 92	
Collections on personal account.....	27,318 04		
Collections in Newton co. stock.....	4,101 09		
Bills payable and permanent deposit.....	14,690 00		
		46,109 13	
Income from railroad....	321,058 10		
Discount, premium and rent accounts.....	7,029 24		
Profit and loss.....	204,596 08		
		532,683 42	
Deposits on long time...	139,000 00		
Deposits on interest.....	125,363 13		
Company's bonds.....	574,900 00		
Dividends unpaid.....	11,234 78		
		850,497 91	
Due to banks and corporations	1,514 44		
Due to agents.....	1,019 83		
Due chief engineer of the state of Georgia.....	400 78		
Due depositors.....	52,952 57		
		55,887 62	
Bank notes issued.....	1,439,195 00		
Railroad receipts issued.	28,755 50		
	1,467,950 50		
Bank notes and railroad receipts on hand.....	1,246,196 30		
Bank notes and railroad receipts in circulation..		221,754 20	
Total liabilities.....			$3,996,217 20

The Trenton News says that a new railroad bridge is now in process of erection across the Brandywine.

Eleventh Annual Report of the Hartford and New Haven Railroad Company.

Before presenting the results of the business of the year just closed, a few general observations on the past and present condition of the company appear to be appropriate to this report.

But a short time since the prospects of the company wore a discouraging aspect. Its total annual income was then only about $90,000, its credit in a depressed state, its stock selling in the market at less than half its par value, and the dividends irregular and uncertain. At that critical period, the extension of the road to Springfield was boldly undertaken, and was prosecuted with vigor against every obstacle, with a success which has surpassed the most sanguine expectations. The result has produced a complete renovation of the affairs of the company, insuring the steady and stable growth of its resources and a constantly increasing business. The income of the company has more than doubled, so that it now yields a liberal dividend to the stockholders, with the certain prospect of their continuance for the future. In short the completion of the extension road has placed the prosperity of the company upon a footing not likely to be shaken by any future ordinary contingency.

Nor is the extension road considered with reference to the future, less important than its bearing on the present condition of the company. Since its completion, and in a great measure, in consequence of it, two new and important additions have been made to the great chain of railroad, which rapidly extending along the populous valley of the Connecticut, is destined at no distant period to connect Lower Canada with the waters of Long Island sound. Each new northern extension will bring to this road a large accession of business and travel, which according to all experience must increase and expand with each successive year.

Such is a brief view of the prospects of the company, with reference to what may be considered its local business, and although the "through travel" between Boston and New York is in comparison with this, a consideration of minor importance, still when the road between New Haven and New York shall be constructed, of which there is now a favorable prospect, it cannot be doubted that this road will receive a share of travel between those two capitals, whatever may be the claims of other existing routes. When this line is completed, the entire distance between New York and Boston, via New Haven, Springfield and the Western railroad, can be traversed by "through trains" with *ease* and *regularity* in less than eight and a half hours. The necessity of a more expeditious route will not then be considered very urgent, or as offering a sufficient inducement for capital: and even the supposition that a more expeditious one is practicable, as yet rests on pretension only.

The earnings of the road from Sept. 1st, 1844, to Sept. 1st, 1845, as appears by the last annual report, were $176,984 40. The extension road was not opened for business until the 9th of December, 1844. The income of the last nine months of that year were therefore made the basis of an estimate for the earnings of the current year, and the amount was fixed in that report at $210,000.

It will appear by the report of the secretary that the receipts have been from—

Passengers		$155,061 01
Freight.....		61,250 73
Mails and expresses.....		12,300 00
Total.....		$228,611 74
Showing an excess over the estimated income for the year, of.....		18,611 74
The amount expended for repairs of track, rebuilding bridges, repairs of engines and cars, including all expenses chargeable to the cost of operating and maintenance of the road is.....	$89,187 95	
There has been paid for interest on bonds and loans...	34,295 29	
From the income, to wit.....		$228,611 74
Deduct, (expenses and interest,).....		123,483 24
And there is left as balance of net income for the year.....		105,128 50

equal te 7½ per cent. on the amount of stock issued.

In this statement the earnings of the steamboats owned by the company and the amount of stock issued for their purchase, are not included.

The amount received from the sale of stock since the commencement of the year is..		$133,204
From forty bonds sold, including premiums.		41,110
Total		$174,314

Of which sum $125,300 has been applied in the payment of the debts of the company standing on the books Sept. 1st, 1845; $24,069 for locomotives and cars; $13,947 in relaying the track with T rail, and the balance for new engine houses, machine shops, and other purposes chargeable to construction account.

On the first of May a reduction in the price of passenger fare was made, and the rates were fixed as near as practicable at three cents per mile. The price previously charged between Hartford and New Haven was $1 50. The reduction of fare between these two points has not yet been attended with favorable results on income, as the local business does not admit of very rapid expansion.

The receipts on the whole road, however, for the four months since the reduction show an increase of $4,208 80 over the corresponding period of the last year.

The number of passengers transported between Hartford and Springfield, (exclusive of "way and through travel,") has been during the year 45,945. Between Springfield and New Haven, (exclusive of "way and through travel,") 8,968. The number between Hartford and New Haven, (exclusive of "way and through travel,") is 16,084. The whole number of passengers transported between all the stations is 191,270. Of this large number not one has received the slightest injury while on the road.

The amount received for travel between *New York* and Hartford, and the stations north of Hartford, has been $36,739, which is 16 per cent. only of the gross receipts.

After a careful examination of the subject, the board effected, on the first of June, a pur-

chase from C. Vanderbilt, Esq., of his three steamboats, employed on the routes between New York and Hartford, and New Haven and New York, for which they paid 1800 shares of the stock, at its par value, which the company were specially authorized to do, by an act of the legislature, passed for this purpose. The boats on these routes has done a prosperous business, and it is certain, that a part of the line being owned by the company, such other advantages will accrue, as will give the company a more independent control of their business. The terms of purchase are considered by the board to be reasonable, and they believe that the interests of the stockholders have been greatly benefitted by the measure.

The construction of a branch, to connect the main track of the road, with the wharves at Hartford, was authorized by a vote of the stockholders at the last annual meeting.—Owing to some unavoidable delays, the work was not commenced until July last, but it is now progressing rapidly, and the branch will be completed and ready for use on the opening of navigation in the spring. The estimated cost is $75,000, which includes a valuable property on the bank of the river, freight depots, etc. The greater portion of the right of way has already been purchased, and contracts have been made for the work, at prices which make it nearly certain, that the cost will be brought within the estimate. The company have thus far done but a small portion of the transportation north of Hartford, the amount of which, on the river above, is not less than 40,000 tons per annum. Connected as the road will then be on the completion of the branch, with deep water navigation at Hartford and New Haven, it cannot fail to command a large share, perhaps the whole of the extensive business of which the valley of the Connecticut is the great natural outlet, in the direction of the chief commercial city of the Union.

To provide means for the construction of the branch, the board has authorized the issue of seventy bonds of $1,000 each, with interest at six per cent. and payable in three to five years from the first of August, 1846.—These bonds are convertible into the capital stock of the company, at its par value, prior to maturity, at the option of the holder.

In the expectation that the company would the ensuing year, relay the road between Hartford and New Haven with heavy rail, and to avoid the necessity, as far as possible, of putting in new material in the present track, the board have purchased four hundred and three tons of T rail, which is now being laid on the highest grades on this portion of the road, and the sound material which is removed, will be used in repairing other parts of the road. In this manner those grades will be made easy for the transit of the trains and little or no waste will be made of the sound portion of the old superstructure. But the work should not stop here. The board cannot conceal the fact that the interest of the stockholders will be greatly jeopardized, if the present superstructure is not speedily replaced by one of a more substantial kind, and adequate to sustain the increasing business of the road. A conclusive reason for the immediate commencement of this work, is the greatly increased economy of maintaining the track, when relaid with heavy rail. The experience of the past year is sufficient evidence on this head. The expense of repairs (material and labor) has been on the extension road, twenty-six miles in length, $3,657 92, which is equal to $142 per mile; and the cost of repairs, (material and labor) on the old road, thirty-six miles in length, has been $16,579 87, equal to $460 per mile. It cannot therefore be doubted, that the reduced cost of maintaining the track, together with the diminished wear and tear of locomotives and cars on the improved superstructure will fully offset the interest on the additional outlay. To these considerations may be added, additional security from accident, the increased speed of the trains, and the more favorable reputation the route will then sustain.

Such portion of the timber in the present track, which is sound, may be advantageously used in the new superstructure, and the cost of relaying the road (after deducting the value of iron and timber, now in use) is estimated at $260,000.

The board have entire confidence in the ability of the company to accomplish this important work, without interrupting the regular dividends; and with this view, they recommend to the stockholders, to authorize at this time, a sale of the reserved stock, on such terms and conditions, as they may judge most beneficial for their interest, to an amount sufficient to raise the necessary funds. The company has still the right to dispose of 5,200 shares, including 1,000 shares of the branch road, transferable to this company, a part of which only will be required to renew the track as proposed.

When the track is relaid with T rail, the condition of the company may be stated, with sufficient accuracy, as follows:

Amount of stock issued, including boat stock		$1,580,000
Add cost of branch road, including 26 bonds sold		75,000
For unsettled land claims, extension road		10,000
Estimated cost relaying track		260,000
515 bonds issued [including 10 pledged].		515,000
		2,440,000

A detailed account of the affairs of the company with respect to capital and liabilities appears in the secretary's report.

The board, in connection with this subject, do not consider it inconsistent with their duties to add, that the income of the company the coming year, after paying current expenses, may be estimated, from all sources, at $195,000, which, after paying seven per cent. on the proposed amount of capital and liabilities of the company, will leave a balance of $24,000 as a contingent fund.

The board has declared a dividend of 3½ per cent. payable October 1st.

All which is respectfully submitted.

By order of the board,

C. F. POND, *President.*

Hartford, September 9th 1846.

Directors Chosen 9th September, 1846.

Charles F. Pond, David Watkinson, Hartford, Conn.; James Boorman, Elisha Peck, Cornelius Vanderbilt, New York city; Ezra C. Read, New Haven; F. R. Griffin, Guilford; James S. Brooks, Meriden; Chester W. Chapin, Springfield Mass.

Officers Elected for the Ensuing Year.

Chas. F. Pond, president; Horatio Fitch, secretary; James H. Wells, treasurer.

SECRETARY'S REPORT.

To the Directors of the Hartford and New Haven Railroad Company:

GENTLEMEN: The following exhibits the business on the books of the company the past year:

Cash on hand September 1st, 1845		$15,641 25
Debts collected and cash borrowed (for branch company) etc.		24,827 89
Stock issued for steamboats		180,000 00
Forty extension bonds sold		40,000 00
Premium on do		1,110 00
Twenty-six bonds for branch company sold		26,000 00
Passages year ending 31st August, 1846	$156,061 01	
Freight do	61,250 73	
U. S. mail and expresses do.	12,300 00	
Rents and storage	127 15	
		228,738 89
		516,318 03
Paid.—Land, damages, etc., old road	649 35	
New machine shop and fixtures	6,604 68	
New engine house, N. H.	2,889 64	
Improvements.—Paint shop, wood house, side track, patent rights, cleaning dock, at New Haven, etc	4,552 79	
Depot repairs and wharf rent at New Haven	1,339 42	
Two locomotives	12,800 00	
Two passenger and 9 freight cars	11,279 14	
Insurance, directors and auditors bills, printing, advertising, agencies Albany, etc	2,870 31	
Labor and materials repairing old road	16,579 87	
Repairs extension road in Connecticut	2,727 75	
Do. in Massachusetts	970 17	
Wood, coal and oil, including stock on hand	28,616 85	
Materials and labor for repairs on locomotives and cars	13,784 88	
Salaries and labor	29,717 41	
Furniture—scale, stoves and clocks	434 32	
Interest on bonds and notes	34,295 29	
Dividends	86,635 00	
One share Tomlinson bridge stock	1,606 67	
Three steamboats	180,000 00	
Reconstruction track, T rail	13,947 94	
Damaged goods, lost baggage, cattle damaged, etc.	804 31	
Branch company	36,659 64	
Cash on hand 80 39		
Cash in treasury 26,582 21	26,662 60	
		516,318 03
Due the company on account	18,290 50	
The company are indebted on account and for borrowed money for branch road, etc	24,348 38	
The expenses of operating the road the past year by the superintendent's report to the board	81,429 91	
To which add salaries, etc.,		

insurance, advertising, damages, etc., not included in his account.....	7,748 74	
Amounting to.....	89,187 95	
There is due Boorman, Johnston & Co., N. York, for T rail iron to relay track on old road not included in the above statement, payable 7th Jan., 1847....	24,818 10	
Whole number shares stock issued, 15,800.		
One hundred and fifteen original bonds of the company are still out.		
Three hundred and ninety bonds for the extension road have been sold.		
Twenty-six bonds for the branch co. have been sold.		
For the extension road 4,000 shares of stock have been sold.....	400,000 00	
Amount collected for rents..	934 49	
Due the old road on sale of bonds.....	381,072 65	
		782,007 14
Accounted for as follows:		
Depot buildings.....	25,860 44	
Real estate other than roadway.....	32,697 18	
In hands of agent for payment of land.....	2,238 40	
Railroad, viz:		
Right of way and materials, labor, etc., in construction.	616,875 48	
Loss on sale stock.....	14,406 00	
Interest on bonds, etc., deducting premiums on sale of bonds.....	17,879 64	
1441 shares distribution stock old road at 50 per cent...	72,050 00	
		782,007 14

HORATIO FITCH, *Secretary.*

Hartford, September 8, 1846.

(Official) Reading Railroad.

A comparative statement of the business on the Philadelphia and Reading railroad for the week ending—

	Sept. 21, 1844.	Sept. 20, 1845.	Sept. 19, 1846.
Travel.....	$1,839 71	$2,103 84	$3,892 39
Freight on goods.	960 93	1,198 09	2,153 33
" coal...	14,002 98	28,233 37	38,704 33
Miscell's receipts.	....	....	....
Trans. U. S. mail.	....	....	....
	$16,803 62	$31,535 30	$44,750 05
Coal trans.—tons.	12,636	24,004	26,678

A comparative statement of the business on the Philadelphia and Reading railroad for the week ending—

	Sept. 28, 1844.	Sept. 27, 1845.	Sept. 26, 1846.
Travel.....	$1,844 48	$1,945 48	$2,816 67
Freight on goods.	911 94	1,050 23	2,652 99
Do. do. coal..	14,217 91	26,623 72	44,980 07
Miscell's receipts.	....	....	....
Transp. U.S. mail.	....	....	....
	$16,674 33	$29,619 43	$50,449 72
Coal trans., tons..	12,720	22,465	31,223

English Iron Trade.

FROM THE LONDON MINING JOURNAL, SEPT. 4, 1846.

From our correspondent.

Iron continues active at quotations, and a good business is doing in all descriptions of English.—Scotch pigs are in rather better request this week, with buyers at 75*s.*

Monthly Report.—Iron [English] continues firm, and higher prices are now realized. In bars and rails a very active business is doing at £8 10*s.* for the former, and £9 15*s.* for the latter, delivered in Wales. Pig iron, of every description, is in great demand, more especially Scotch—many thousand tons of which have been placed this week at 73*s.* to 74*s.* for No. 3; 75*s.* mixed Nos; and 76*s* to 80*s.* for No. 1—free on board at Glasgow. The latter rate has been paid for Gartsherie, which is in great request for the American markets. Swedish iron has been sold in limited quantities at £11 to £11 10*s.*, and Swedish steel at £13 5*s.*—to arrive.

To the Editor of the Mining Journal.

Glasgow Pig Iron Trade.—Sir: Since the date of our last, the pig iron market here has experienced a slight revival. The improved state of the money market, and the arrival of some good orders from America, are no doubt the causes. During the last three days a large business has been done at gradually improving prices, and the market has closed firmly this afternoon at 73*s.* 6*d.* for No. 3; 76*s.* for 3-5ths No. 1 and 2-5ths No. 3; and 77*s.* to 78*s.* for all No. 1—cash, free on board.

Glasgow, Sept. 2. DOUGLAS & HILL.

LONDON, SEPT. 11, 1846.

	£.	s.	£.	s.	d.
Bar *a* Wales—ton.....	0	0	8	15	0
" London.....	0	0	9	15	0
Nail rods.....	0	0	10	10	0
Hoop (staf.).....	11	5	11	10	0
Sheet.....	0	0	13	0	0
Bars.....	0	0	11	0	0
Rails, average.....	0	0	10	0	0
Welsh cold blast foundrey pig....	0	0	8	15	9
Scotch pig *b* Clyde.....	3	15	3	17	6
Russian, CCND *c*.....	0	0	16	0	0
" PSI.....	0	0	16	0	0
" Gourieff.....	14	5	14	5	0
" Archangel.....	0	0	13	10	0
Swedish *d*, on the spot.....	11	0	11	10	0
" Steel, fagt.....	16	0	16	10	0
kegs *e*.....	0	0	13	10	0

a, discount 2½ per cent.; *b*, net cash; *c*, discount 2½ per cent.; *d*, ditto; *e*, in kegs ¼ and ½ inch.

From our correspondent.

IRON.—A good business has been done this week in all descriptions of iron, and prices are decidedly firm. Swedish iron and steel are nominal at quotations—no sales having been made since the publication of last week's *Mining Journal.*

Communicated by Messrs. Whitcomb & Barton.

English bar iron has been in considerable demand this week, and prices have again advanced. Makerr are now asking £9 on board at the port. Welsh and Staffordshire pig iron continue to improve.—Scotch pig iron is exceedingly firm, although the demand, during the last week, has been limited; we quote the price 75*s.* to 77*s.* 6*d.*, according to Nos.—Foreign iron and steel without alteration.

From a correspondent.

English iron is firm at quotations. Bars are much inquired for, and a considerable business has been done at £8 10*s.* net cash, which sellers now refuse. The market for Scotch pig iron has been quiet for the last week; some business has been done at 75*s.* cash, for mixed Nos., free on board; and 77*s.* 6*d.* for No. 1, bill at four months, adding interest.

To the Editor of the Mining Journal.

Glasgow Pig Iron Trade.—Sir: We have had a better business to-day and yesterday than for some days previously. Our quotations are, for No. 1, 77*s.* to 78*s.*; No. 2, 73*s*; and mixed Nos. 75*s.*—cash free on board. DOUGLAS & HILL.

Glasgow, Sept. 9.

Miscellaneous Items.

The Keene, (N. H.,) Sentinel says, "our railroad grading and bridging is going on finely upon every part of the line. The commissioners have just sanctioned the road, and assessed the damages to within a mile or a mile and a half of Bellows Falls, and would have completed their work on that part of the line had the engineers been fully prepared for them. It is now probable the bridge across the Connecticut, to connect with the Rutland road, will be laid just above the present bridge, and the depot located on the island north of the dwelling house of Simon Baxter, Esq. The commissioners will meet again on the 25th, to locate the line across portions of our village not yet completed.

"All who are obliged to travel in stages will very much rejoice when they can get out of our valley by railroad. The public stages are now often dangerously crowded, and two accidents of turning over have recently occurred, though no very serious injury, we are glad to learn, has resulted. In one which occurred on Saturday, three ladies were bruised, and one, (on the top,) actually thrown over the fence. Besides the too common over-loading of stages, there is a dangerous propensity to crowd the tops unnecessarily, when the body is not full. While we say so much, it is due to the drivers on the several lines to and from this town, to say that a stage accident is a very uncommon event, and that they are not only obliging, but attentive and careful. Nine inside and five outside, fill every seat provided, with two on the driver's seat, and when more offer the proprietors can well afford to provide extra conveyance."

The correspondent of the Baltimore Sun, writing from Frederick, Md., has the following announcement of the death of a gentleman well known in that vicinity.

I have to record the death of Mr. David Steiner, the agent of the Baltimore and Ohio railroad company, formerly at this place, and more recently at Cumberland. His illness has been of some month's duration. He was a most estimable citizen; honest and upright; and in regard to his official capacity, he had but a single eye to the interest of the company during his association with it, now 14 years.

Americans in Russia.—The Cincinnati Chronicle says, Col. Todd (late minister to Russia) informs us that the grading and working on the entire railroad line, from St. Petersburg to Warsaw, 440 miles, was given to American contractors. The contract amounts to $4,500,000, and was given to American contractors, in the face of the competition of all Europe, *without security.*

Great Project.—We have heard, from various quarters, that a plan is seriously in contemplation, to unite all the railroads which run out of Boston by a semi circular sweep of a very few miles, from East Boston to the Old Colony road. The most obvious advantage of such an arrangement would be the placing of each of the roads at once upon tide water. A load of cotton for Lowell, for instance, might be lifted from the hold of the vessel into the cars designed to carry it to its destination.

Erie Railroad.—The earnings of the eastern division of the Erie railroad for the month of Sept., 1846, were as follows:

From freight.....	$12,101 98
Passengers and mail.....	6,230 91
Total.....	18,332 89
Same time last year.....	15,585 92
Increase.....	$2,746 97

Stonington Railroad.—

Receipts in September, 1845.....	$12,684 86
" " " 1846.....	20,622 07
" " July, August and September, 1845 3 mos.....	34,845 54
" do. do. do. 1846.....	55,784 70

Correspondents will oblige us by sending in their communications by Tuesday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Saturday, October 10, 1846.

Iron Mines in Missouri.

It will be seen by an advertizement in this number of the Journal that the HORSE SHOE BEND IRON MINES, in Missouri, not far from St. Louis, are offered for sale or lease. The position and extent of this deposit of valuable ore, and the extent of the water power must render this a very desirable property for those who wish to engage in the manufacture of iron in the southwest; and we know of no more favorable location for an investment in the *iron* business than in that region of country, where, within a few years, must be constructed many *hundred miles* of railroads, and many *hundred thousand tons* of machinery, for *steamboats, mills, and factories.*

TO IRONMASTERS.—THE UNDERSIGNED is now prepared to sell or lease the valuable seat for Iron works, known as the "Horse Shoe Bend" of the Merrimac River, together with several hundred acres of Iron Ore of a superior quality, in the immediate vicinity. The Ore lies in inexhaustible beds on each side of the River, (based some on sandstone and some on limestone,) and is a brown Oxide, the principal beds known as "Pipe Ore."—The beds are from five to thirty feet in thickness, from one to three hundred yards in breadth, and from one quarter to one mile in length. The ore accurs in distinct masses of from one to five hundred cubic feet in size, is connected with Yellow Ochre, and in point of *quantity* and *quality* is believed to be not inferior to any in the state. The distance of the Ore from the Bend is from one-fourth to three miles, and the cost of mining and transporting it to the furnace from the farthest beds, will not exceed sixty or seventy cents per ton.

The lands are thickly timbered with Oak, Hickory, Ash, etc., and when cleared off are fine for agricultural purposes. The distance around the Bend of the River is four miles, and the amount of natural fall in that distance is nine feet, to be made available by cutting a race three hundred yards in length across the Narrows, through which, if wanted, the whole River may be drawn by increasing the size of the race. Its situation is three miles below the Virginia Mines in Franklin Co., Mo., sixteen miles south of "South Point," on the Missouri River, and thirty-two miles west of a good shipping point on the Mississippi, from which latter the Merrimac River is navigable to the Virginia mines, and above for keel boats, batteaux, and other light craft, for more months in the year than the Ohio.

This water power, from its great extent and cheapness over any other now in use, must necessarily draw to it the smelting of those rich Ores of Copper and Lead which recent discoveries have shown to be so abundant in this region.

The wants of the vicinity require the erection of good grist mills; also, a large and profitable business can be done with saw mills, the material for lumber being varied, rich and extensive.

Large forests of Yellow Pine exist on the head of the Merrimac River, which can be easily floated down to the Bend, and from that point the rafts of lumber, can pass out to the Mississippi in any season af the year. The property is offered very low, as will be apparent to any one examining the same. Titles amply guarantied.

4t41] FERNANDO A. EVANS.

Virginia Mines, Franklin Co., Mo., Sept. 1846.

BOSTON WATER WORKS.—PROPOSALS will be received from the 5th of October next tr the 12th inclusive, for the excavation on the Aqueduct, from Needham to Brookline, a distance of about nine miles, including the earth and rock cutting and two tunnels one about 2,300, and the other 1,100 feet in length, together with the shafts necessary for the working of the tunnels. The quantity of earth and rock to be removed is upwards of 500,000 cubic yards.

The line will be staked out and ready for examination, and profiles, specifications, and a description of the work will be furnished by the day first above mentioned.

Satisfactory security will be required for the faithful performance of the work.

Application may be made at the Office of the Commissioners in Boston, to E. S. Chesbrough, Chief Engineer, at West Newton, to Henry S. McKean, Resident Engineer, Newton Lower Falls, or to Thomas S. Williams, Resident Engineer, Newton Corner.

Boston, Sept. 22. 1t41

Smoking Cars.

The smoking portion of the community is certainly not the *least* respectable portion—it is moreover quite too large to be neglected in providing for the comfort and convenience of the public.

Notwithstanding all the "counterblasts" from King James down to Mr. Lane, the practice holds its sway over men, and undoubtedly ever will as long as tobacco grows—there is no use then in denying accommodations to smokers on the ground of objections to the habit—too many, and too many great and good men have smoked and do smoke, to allow of any one stigmatizing the practice as vulger or indecent.

But beside this, men *will* smoke and no one can prevent them. The tedium of a long or of an oft repeated short journey is very agreeably beguiled by a smoke. In England the attempt to put down smoking, by not providing separate cars, has led to very loud complaints, and ere long, suitable cars for the exclusive use of smokers will be found on every great line in the kingdom.

In the United States there is no regular arrangement for this purpose. Passengers are very properly forbid smoking in the usual cars, that is, in those which contain ladies and persons to whom it might be disagreeable or injurious. On some lines a car is found for the exclusive use of those who wish to enjoy their cigars, and such a car we have seen both comfortable and cleanly. We have seen too the vilest, filthiest old broken down affair that could be made by any possibility to run, employed for the same purpose.

There should be found in every train a clean, comfortable and sound car, or compactment of a car—for the use of smokers.

Second Class Cars.

We are no advocates for unnecessary separations or distinctions in the social world, least of all would we multiply occasions by which the more wealthy can distinguish themselves from the less wealthy.—It is on this ground that we have always considered the use of first and second class cars, where the difference consisted only in the fare paid, as both foolish and useless. Experience has proved that this is so. If the second class cars are good and comfortable, every one will ride in them, if they are not, no one will.

There are however, many people who travel who are not fit or decent companions for the large mass of the travelling public. Filthy in their persons and dress, few would like to sit near them, much less upon the same seat. Few are willing to be on such intimate terms with the dark race, even if theoretically they preach up the perfect equality of all men. Here there are two distinct classes of passengers, which it is expedient should be separated from the rest. No regulations which enjoin that loafers should occupy this car and negroes that, would be tolerated—in fact there are special laws in some states preventing the enforcement of such regulations, as far as the negroes are concerned.

We propose the following remedy for this difficulty: Let a separate car, or compartment be provided in each train for the negroes, and another for the loafers. Let it be understood that a lower price should be paid for a passage in these cars, and no difficulty would be found in inducing each class to take their own car. The negro when he applies for a ticket is seated with his own people in a good and comfortable car, and as a compensation for his doing so, is carried at a lower rate. Does a loafer want a passage, show him into the loafers car, (only be careful not to give it this name,) and tell him he can ride there for half price—he will in most cases quietly take his seat.

Now and then it is true, an obstreperous subject will be found, but if he is let alone, the temptation of half price, and the feeling that he is out of his place will pretty surely draw him out.

India Rubber Floats.

The New York Express gives an account of the India Rubber floats intended for the army, which have been exhibited at Jersey city, within a few days. The invention is by an officer of in the U. S. army. The Express says:

"The contrivance is remarkably simple, consisting of two or more cylinders, made of heavy canvass, coated with 'Goodyear's insoluble rubber,' inflated and attached to baggage wagons and ordnance, for floating the same across rivers. In this experiment two small cylinders were used, and attached to a wagon weighing 1685 lbs.; the wagon was then filled with persons, and it floated with as much buoyancy as a life boat. If the water is shoal, the wheels support the wagon, and in deep water the floats sustain it. It is attached in a few moments, and detached by removing six pieces, so that it can be drawn across the stream with cords, and attached to other wagons; and in this way an army with their baggage train can be passed over a stream as rapidly as over a bridge. For the western and southern portions of our territory, where there are no bridges, this apparatus will be found invaluable, aside from the uses of the army, and we have no doubt will recommend itself as a most valuable improvement."

Pumping Water from Lake Michigan.

The want of water to supply the *Illinois canal* has induced the present canal company to think of pumping water from lake Michigan. The Pittsburg Gazette in alluding to the subject, remarks as follows:

"They wrote to Messrs. Knapp & Totton of Pittsburg, and furnished them with data to calculate whether it could be done, and what force and what machinery would accomplish it. These gentlemen soon furnished an answer, and the other day received in return,

an order to build some powerful machinery for that purpose—a steam engine and *eight* pumps of four and a half feet bore and six feet stroke. We are glad to hear that this eminently scientific firm have been selected to execute this order. Their shop and mechanical force are not excelled by any establishment in the United States.

"In Holland they supply their canal with water from the meadows by windmills.—Hundreds of windmills, moving whenever the wind blows, are constantly at work, keeping the meadows dry and the canals, which are higher than the meadows, full. The wind, however, is a capricous laborer, and though there is generally quite enough of it on the shores of lake Michigan, the supply of water, if trusted to the windmills, would be rather irregular, sometimes too little perhaps, and sometimes a deluge."

The Great Lakes.

We extract the following from a late writer who speaks from personal observation.

"Ships, of which there used to be several in these lakes, have disappeared entirely—the general rig is that of the *hermaphrodite* brig—though there are some schooners, but no sloops of which the huge boom would I suppose be found unmanageable in the sudden and violent gales of the lake.

"Propellers are increasing in number and favor—they combine the qualities of sailing and steam vessels, and being less expensive in structure and in running, these steamers do a large business in freighting, and in conveying immigrant passengers. A fine one, the Genesee Chief, from Rochester, came up to this place and Chicago, a few days ago and attracted unusual notice by the excellence of her arrangements and accommodations, and the appearance of good time she made. This vessel like all others from Ontario, passes through the Welland canal, and thus turns on British soil, the falls of Niagara, which, but for British enterprize in the very heart of this our own country, would be an impassable barrier between the St. Lawrence, lake Ontario and the upper lakes.

New England Railroads.

The railroads in the New England states were never doing a more prosperous business than they are at the present time; and we find in the newspapers of the day, from that region, constantly, the most flattering accounts of the prosperity of those roads. The dividends are increasing, the value of the stock is regularly advancing, and new roads and new branches from old ones, are being made in every direction. But a few years hence and an iron net work will cover the whole surface of the thickly populated portions of the eastern states; and we are glad to witness this evidence of the increasing prosperity of the railroad interest. The Boston Courier has the following remarks upon this subject:

"All the railroads are said to be doing a large business, particularly the Western, the receipts of which, for a number of weeks past have averaged rising twenty thousand dollars each, making the increase in seven and a half months over one hundred thousand dollars, and the harvest of the year yet to come. In view of this increased traffic, the whole income for the year has been estimated at a million of dollars, which would show a gain of one hundred and eighty-seven thousand dollars over what was earned on the road last year, or six per cent. additional income. Great interest is felt in the success of this noble enterprize, by every citizen of the commonwealth. The following statistics have been collected with some care, and may not be altogether uninteresting.

"The road was opened through to Albany in 1842, when the receipts were $512,688; in 1843, they were $573,882; in 1844, they were $753,752; in 1845, $813,480; and in 1846, if the above estimate shall be realized, they will be $1,000,000, having nearly doubled in four years! Should this increase be continued, the time is not very remote when the company will be enabled to make unheard of dividends, the interest on five-eights of the costs being a fixed charge, at five and six per cent., while all the net surplus will be for the benefit of the other three-eights, held by the shareholders. The reserved fund of net earnings, entirely distinct from this year's business, is $129,066, and the value of the two sinking funds at the close of the year will be 545,854, which, by its own operations, will redeem the whole debt at maturity. The road is 156 miles in length, from Worcester to Albany; the land, depots, bridges, embankments, cuts, and all the heavy outlays, except iron, being arranged for a second track, the cost of ironing which is estimated at about seven thousand dollars per mile.

"Within a year or two a double track will be required for fifty miles between Springfield and Pittsfield, in the centre of the line, corresponding with that between Boston and Worcester. New shares will be created for this purpose, the premium upon which will be an extra dividend to the old shares, as in the cases of the Concord, Fitchburg, Worcester, Lowell, Providence, Maine, Eastern, etc., none of which are doing better than the Western railroad, the stock in which commanded at one time 104 dollars. On the 4th June, 1845, it was sold at Mr. Brown's auction at 103½ dollars! and on the 1st Jannary, 1846, after the violent but groundless attack upon the property in one of the morning papers, and its failure of a union with the Worcester road, it fell to 87. It has since risen to 98, and is daily gaining the confidence of the public, and of those who at one time thought very meanly of it."

It does not require the gift of pophecy to foresee that this road is to become one of the most *important* and *profitable* roads, of its length, in the country. We have only to judge of the future by the past to arrive at correct and satisfactory conclusions.

A Railroad Hint.

An English engineer, writing to the Morning Journal, makes a suggestion which may "come to something" in time. The writer asks:

"Why not employ the force of a large still spring, similar to the spring of a watch, to put in motion a railway train? The spring might from time to time, be wound up by the power of small stationary engines; and as watches will go 24 hours without winding up, why should not a locomotive, furnished with a similar source of power within itself, go for an equal space of time? Those who have seen and understood the construction of common musical snuff boxes will readily comprehend how the force of a spring may be made to communicate to the driving wheels of a locomotive any required degree of velocity; the little fly-wheel or fan box revolving at a rate far greater than would ever be required in railway locomotion. It may be added to the above that a spring of force sufficient to carry a whole train is by no means necessary. They may be multiplied—one to every two or three cars, if expedient.

Cannot some ingenious Yankee improve upon these hints.

The Anthracite Coal Trade.

Continued from page 589

In the gap of the Sharp or Tuscarora mountain, the coal and iron ore veins, developed and worked, are as follows, commencing with the lowermost coal vein, it being that which crops out to the surface near the top of the mountain, and proceeding north towards the centre of the basin.

No. 1, coal vein, locally called S vein, contains 4 feet of good coal at top, 1 foot of undermining, and 3 feet of rough coal in bottom. The gangway has been driven in this vein about 200 feet on the west side of the gap.

No. 2, coal vein, locally called R vein, in which the gangway has been driven on the west side of the gap for about 1800 feet, contains 5 feet top bench of coal, 1 foot undermining, and 3 feet bottom bench of coal.

No. 3, coal vein, locally called QQ vein, contains 3 feet top bench of coal, 1½ foot of dirt in the middle, and 1½ to 2 feet of coal bottom bench.

No. 4, coal vein, locally called Q vein, contains about 4 feet of coal in one bench. The Q vein is ten feet north of the QQ vein. The gangway through which the coal of both veins is brought to the surface has been driven on the west side of the gap upwards of 3000 feet. These two veins are worked under lease from the Lehigh coal company on the east side of the gap. The coal is very regular and free from fault.

No. 5. coal vein, locally called P vein, in which the gangway has been driven on the east side of the gap for about 1500 feet, is about 14 or 15 feet between slates, there is 3 feet bottom bench of coal over which is 1 feet of undermining, and the remainder or top bench is coal and slate alternating.

No. 6, small coal vein, about 1 foot in thickness.

No. 7, coal vein, locally called the O vein, contains 3 feet bottom bench coal, 1½ foot boney coal, and about 5 feet top bench good coal. The gangway upon this vein has been

driven in on the west side of the gap about 1000 feet.

No. 8, vein of coal, locally called OO vein, was proved by a tunnel cut across the measures to the north about 300 feet in from the mouth of the O vein gangway. The cross cut or tunnel was made through about 24 feet of slate. The vein of coal cut was 6 feet in thickness, but proved very soft, and consequently has not been wrought.

No. 9, coal vein, small, not opened.

No. 10, coal vein, locally called N vein, is 3 feet in thickness, has a rock top, and has been worked upwards of 1000 feet on the west side of the gap.

No. 11, coal vein, locally called M vein, contains about 1 foot of coal.

No. 12, coal vein, locally called L vein, contains 3½ feet of coal, the gangway has been driven in west of the gap say 1000 feet. The vein has a rock top.

No. 13, supposed vein, small.

No. 14, vein of coal, 18 inches in thickness.

No. 15, vein of coal, locally called K vein, contains 6 feet of coal of a soft nature, the gangway has been driven in about 300 feet west of the gap.

No. 16, vein of coal, 1½ foot in thickness.

No. 17, vein of coal, 2½ feet in thickness.

The above veins of coal all dip to the north at an angle of 70 or 80 degrees; the dip decreases from south to north. Up to No. 9, the veins may be considered of the white ash class; No. 10 to 17 are red ash.

Still proceeding north from No. 17, there is developed between it and the valley, four red ash veins which have a south dip. These are evidently the uprising to the north of some of the last described veins, thus forming a trough or basin.

In a former communication I promised that after I had given a description of the coal veins at Tamaqua, I would submit my views relative to the formation of the mass of coal found on the Lehigh estate at the Summit Hill mine, on which Prof. Rogers, in his second annual report of the Geological Exploration of the State of Pennsylvania, p. 80, has remarked as follows:

"A very analagous displacement of the same mountain ridge,* and on a scale scarcely less considerable, occurs on the southern side of the basin, at the Summit mines of the Lehigh company, where the eastern prolongation of the Sharp mountain, has been thrust northward of the western, through a distance of many hundred yards. This has formed a broad, elevated plateau, between two disjointed summits of the mountain from which all the upper coal measures have been swept away, and the strata denuded precisely to the fortunate depth necessary to lay the vast deposite near the base of the series, accessible on the surface of the hill. Thus an immense mass of coal has been spread out over a wide space, in a nearly horizontal position, disturbed however by numerous sharp east and west wrinkles, or parallel anticlinial axis. These undulations point distinctly to the transverse disruption of the mountain and the adjoining coal measures, as the origin of this remarkable table land."

The conclusions arrived at from my own observations of this part of the coal field, relative to the cause which produced the great deposit of coal at the Summit Hill mine, is not that the mountain has been thrust forward for several hundred yards to the north; but that the gradual elevation of the basin or synclinal axis or coal veins, formed by the north dip of the veins of the Sharp mountain basin, and rising again to the north of Tamaqua, becomes at the Summit Hill mine, so near the surface as to expose some of the thicker and lower veins of the series. These veins, saddling over to form a second north dip, constitute those which are now being worked by the Lehigh company, at Summit Hill. The great thickness of coal may be attributed in part to the fact, that in many places where saddles of veins occur, the coal is much thicker than it is in its regular north or south dip. The same fact may apply to the saddling of two or more veins, and the saddle, or anticlinial axis of coal worked at the Summit Hill mine, may be the aggregate thickness of two, three, or more veins; for the fact has been satisfactorily proved that the distances between the coal veins in the central part of the region are much greater than they are between the same coal veins, in their continuation towards the east and west termination of the basin. The rocks lying between the coal veins, in the central portion, occupying a space of many yards, then out in other places, leaving at last the coal slate only, and sometimes not that, to separate the coal veins. The great thickness of coal and slate alternating, at the Summit Hill mine, may be caused by two or more veins coalescing in this manner.

The basin, or synclinal axis of coal veins, before described, continues eastward to the Summit Hill new mine, an excavation of much smaller area than that of the Summit Hill old mine; passing this, the chain of mountain is discontinued, the gradual elevation of the basin, and the falling off of the mountain, effect a diminution or discontinuation to this trough of coal veins; all the supposed shoving, disruption and dislocation, is nothing more than the natural consequences to be expected from causes like the foregoing—that is, to use the miners' phrase, the coal veins, from their elevated position as found at the Summit Hill, "baining out."

Like terminations to the above are found in different places in the coal formation, both as regards separate veins and series of veins, which will be treated upon in their proper places.

The second north dip of this coal strata, maintain the same prolongation from Tamaqua to the Summit Hill mine, and from thence to the point of termination of the coal veins near the Lehigh.

The syncinal axis formed by the uprising of the Locust mountain coal veins at Tamaqua, continues to Rhume Run, and here in consequence of the higher elevation of the veins, and the deep gap in the mountain, it is perfectly developed. The coal veins of this axis saddles over, and forms a second dip to the south. The synclinal axis runs out some distance east from Rhume Run, but the second south dip of the veins continue until they meet in the point of termination, near the Lehigh.

W. F. ROBERTS,
Engineer of Mines, Philadelphia.

* Prof. Rogers here alludes to what he terms in the foregoing paragraphs, of the same work, "an enormous dislocation in the entire change of the Sharp mountain, nine miles east of Pottsville," on which I shall have occasion to offer some remarks, which will appear in their proper place.

Prospects of the Iron Trade.

There never was, perhaps, a period in the history of the iron trade in which its prospects were so promising as at the present moment. We have high prices, occasioned not by speculation, but by legitimate requirements—short stocks, which are daily becoming shorter, as the supply cannot keep pace with the exigencies of the public; a prospective demand now closely pressing on the market, great beyond all precedent; and this, without the possibility of increasing the make of iron to any considerable (if any) extent. That the present very remunerative prices of iron are not the result of speculation, but of legitimate business, is well known to every one who has paid the slightest attention to the iron market for the last few years. Between 1835 and 1840, the prices ranged very high—pig iron being £6, £7, and even £8 per ton.—This was in part occasioned by the impetus given to the trade by the increased demand, but far more by the spirit of speculation, then abroad; and the consequence was that, as soon as speculation subsided, a reaction took place, and a period of depression came, unexampled in its severity. Since then, the uses to which iron is applied have much increased; large supplies of rails have been wanted; and the trade recovering itself, not suddenly, but by a steady and sure progress, has attained the position in which it now stands. With the single exception of the early part of last year, when for a short time, there was a little, gambling in iron speculation has not for many years prevailed in the iron market; and it is to be hoped it will remain absent for the future, as nothing tends more to place the iron master in an embarrassing position than high prices *artificially* produced, as they interfere with the costs of production, and lead universally to his ultimate loss.

During the period of depression—from 1840 to 1843—the ironmasters unable to sell, and unwilling to blow out their furnaces, accumulated large stocks of iron, which have stood them in good stead since the period of prosperity has set in; as for some time past the make has been beyond question unequal to the demand, and the deficiency has been supplied from their accumulated stores, which have been thus gradually sold off, and are now, we may say, dissipated; for we believe there never was a time in which the iron in store in this country was so short as at present, and it is daily getting shorter; as at Glasgow the stocks are reducing at the rate of fully 1,000 tons per week, with no chance of an increased make, owing to the scarcity of minerals in the Glasgow district—whilst in Staffordshire, minerals are becoming so scarce,

that many of the masters find great difficulty in keeping their furnaces at work. If then, there be this difficulty in meeting the present demand, how will it be possible to meet that which will press upon the market from this time forward until the railway system (which is now in its infancy,) be fully developed?—In this country, acts were obtained, in 1844 and 1845, for 3,543 miles; and this session—and this does not include the acts passed just before the adjournment of parliament—for 3,951 miles; making together 7,494 miles of railroad authorized for this country alone—whilst, (according to the report of Mr. Morrison's select committee on railroads,) in France, at the present time, about 620 miles of railroad are in operation; and the whole number of miles to which the railroads will extend in six years is estimated at about 3,700 miles—so that there are 3,100 miles to be constructed in the next six years; and in Prussia, 700 miles are in the course of construction; upwards of 800 miles more finally adopted, and upwards of 700 miles remain merely as projects; besides which, in every part of Europe, railways are either constructing or projected, and this will constantly be the case so long as the system remains incomplete, as the advantages of this means of communication are so great that the progress of railways cannot be arrested—it is a question of time merely. In India, too, the railway system is likely to find considerable favor, as there is little doubt that the early requirements of that country will not be less than 2,000 miles. Without however, estimating any but lines already authorized, we have in England, France, and Prussia, above 12,000 miles of railway, which will beyond question, be constructed within the next six years.

Let us consider the effect the demand for the iron required for these undertakings is likely to produce on the English market. It is certain that this country cannot depend upon any foreign market for iron: on the contrary we are large exporters—having exported in 1845, (as appears by the parliamentary return published in last week's *Mining Journal*,) above 350,000 tons of iron and steel, in a manufactured and unmanufactured state. Our exports are to all countries, including France, Russia, Prussia, Germany and America—and they are on the increase; as, comparing the export of iron from London and the Clyde during the first six months of 1845, with the export of iron from the same places during the first six months of the present year, they have increased from 162,506 tons to 285,655 tons—an increase of nearly 75 per cent.—Being assured then, that we cannot look to foreign countries for a supply; but that, on the contrary, they will have to look to us for a very much larger supply than any they have yet received, particularly since the modification in the American tariff, it follows that we shall have to find iron for our own railways at all events—viz: for 7,494 miles, which will require, at 500 tons a mile, (a moderate estimate,) 3,747,000 tons of bar iron, equal (the loss on converting pig into bar being about 20 per cent.) to 4,496,400 tons of pig iron in round numbers—4½ millions tons of pig iron. Now, the make of the kingdom is (as near as it can possibly be estimated,) 1,500,000 tons of pig iron per annum; of this at least 400,000 tons is got rid of in the exports—leaving 1,100,000 tons to supply this country—consequently, should the above railroads be carried out in the next six years, as (unless prevented by want of iron,) they undoubtedly will be, the English railroads will require 750,000 tons of pig iron per annum for six years to come, and to supply them this country must increase its make at least 70 per cent. That this is an impossibility, is beyond all question: the ironmasters have increased their make already almost, if not quite, to the limit. Iron ore is getting excessively scarce and dear in Staffordshire, and very few new furnaces are building. Indeed, so entirely are the iron properties occupied and pressed to their full work, that not even an iron company has started, with one single exception—that of the Banwen iron company, advertized in our columns of to-day; and this shows the tension of the system more fully, as there is no doubt that any iron property fit to be worked at all, must, for the next 10 or 20 years, return such large profits, that 20 per cent, will be considered but a small matter by the ironmaster—in short, those who are fortunate enough to hold iron properties, possess, as it were, a mine of gold; they have virtually a monopoly which cannot be interfered with, as iron must be had, however costly the price.—*Mining Journal.*

Improvements in the Manufacture of Iron.

Specification of patent granted to Thomas Lever Rushton, Esq., of Bolton-le-more, in the county of Lancashire, iron manufacturer, for certain improvements in the manufacture of iron.

This invention relates to the manufacture of malleable iron in reverberatory furnaces. The first improvement consists in mixing hammer slack, roll scale, red ore, calcined ironstone, or other oxide in a pulverized state, with a proportion of finely pulverized charcoal, coke, or other suitable carbonaceous matter, which should be as free as possible from sulphur, and introducing the mixture into the furnace before, or along with, or immediately after, the charge of pig or refined iron. The mixture of ore and carbonaceous matter is turned over from time to time, until the iron is melted, and then they are worked together in the usual way. The patentee says, that this process is very similar to that described in the specification of a patent, which was granted to W. N. Clay, March 31, 1840; but in the present instance, the proportion of carbonaceous matter varies from 17 up to, but not including, 28 per cent., by weight of the ore or oxide; while Clay's invention was confined to the use of not less than 28 per cent. The proportionate weight of carbonaceous matter and ore or oxide employed, within the above limits, depend upon the quantity of carbon and oxygen they respectively contain, the description of pig iron used with them, and the amount of pig iron to be added to the mixture. The following proportions produce an abundant yield of excellent iron: 480 lbs. of No. 4 pig iron, 84 lbs. of Lancashire hematite ore, and 20 lbs. of coke dust; if No. 1 pig iron be used, a smaller quantity of carbonaceous matter will be required; but if the charge of No. 4 pig iron be reduced to 420 lbs., the weight of ore or oxide should be increased 180 lbs., and the coke to 48 lbs.

The second improvement consists in the addition of clay, argillaceous ironstone, or other substance containing alumina, to the ores or oxides which produce iron of the quality termed red short. The clay or other substance used, should be ground fine and dried, before being mixed with ore. A larger quantity of carbonaceous matter, generally above 28 per cent., will be required for a given quantity of ore, than if no clay were used, for the clay, in addition to its capability of taking up the carbon, has a tendency to diminish the contact of the ore or oxide with the carbonaceous matter, and thereby prevent a complete decomposition. The proportion of clay will vary with the quality of the ore, but from 4 to 10 per cent. of the weight of the ore will be sufficient when operating on the Lancashire hematite ores. If too much clay be used, the tap cinder will be very sluggish, and the ball, when under the hammer, will emit continuous showers of dark red cinders; and if too little be employed, the iron will retain some of its red short quality.

The third improvement consists in combining a portion of the tap or flue cinder of puddling and balling furnaces with a portion of clay, chalk, carbonrceous matter, and rich iron ore, or some of these substances, and manufacturing the mixture, either with or without pig or refined iron, in reverberatory furnaces, into malleable iron. The materials must be pulverized and dried before being mixed together. The relative proportions of the different substances may be as follows: 150 lbs. of tap cinder, containing about 71 per cent. of protoxide of iron, 150 lbs. of Lancashire hematite ore, 20 lbs. of pulverized Worsley fire clay, 20 lbs. of chalk, and 100 lbs. of coke dust.

With regard to the first part of this invention, the patentee says he does not claim to have discovered the manufacture of malleable iron in reverberatory furnaces, either with or without a portion of pig, or scrap, or refined iron, nor the advantage of pulverizing the ores and carbonaceous matter; but he claims the manufacture, in reverberatory furnaces, in the manner above described, of malleable iron, by means of ores and carbonaceous matter, mixed in proportions limited as before mentioned, and combined with a portion of pig or refined iron. Under the second improvement, he does not claim to have discovered the advantage of using a portion of clay or argillaceous ironstone in the manufacture of iron from certain ores, that having been previously done in the manufacture of pig iron from such ores; but he claims the use of clay as an ingredient to be employed in a pulverized state, mixed with certain ores and carbonaceous matter: also, pulverized, for the manufacture, both with or without pig or refined iron, of malleable iron in

reverberatory furnaces. With regard to the third improvement, he does not claim to have first applied a portion of tap or flue cinder or other silicate of oxide of iron with lime or carbonate of lime, and with iron ore, clay or carbonaceous matter, all these having long been used in the manufacture of pig iron; but he claims the manufacture of malleable iron from the combination of those substances, pulverized, both with and without pig or refined iron, in reverberatory furnaces, as before described.—*Mining Journal, Sept. 5th.*

Extensive Iron Railway Bridge and Viaduct.

An iron bridge, in size and magnificence, perhaps, never before equalled, is about to be erected, with a corresponding viaduct across the Tyne, from Gateshead to Newcastle-upon-Tyne, for the Newcastle and Berwick railway. The iron work contract was led at York; there were a good many tenders, but Messrs. Crawshay and Sons, of Gateshead, were the successful competitors; Messrs. Losh, Wilson and Bell, of the Walker iron works, and Mr. John Abbott and Co., of the Gateshead iron works, will also take part with them in the construction of the work—Messrs. Hawks taking the castings for the approaches and the other firms the arches for the bridge. The contractors are to make, supply and erect all the cast and wrought iron and wood work for bridge and approaches, according to the designs, and under the instructions of R. Stephenson, Esq.; it is to consist of six cast iron circular arches, with a curved approach at each end, and will in fact, be a double bridge; the railroad on the summit, and a carriage road and two footpaths suspended from the arches. The span of the arches will be 125 ft., supported on pillars 21½ ft. high, and 14 in. square, and the approaches from both Newcastle and Gateshead will be 251 ft. in length and precisely similar. Two courses of 3 inch planking will be placed beneath the rails, between which will be a layer of Borrowdale's patent asphalted felt, to render them waterproof; and the carriage road beneath will be paved with wood to prevent vibration, and the footpaths planked. Every arch will be completely erected on the contractors' premises by itself, when the engineer will inspect and test its strength and fitness; the quantity of iron required will be about 6,000 tons, and the contract is stated to be £120,000. The entire cost, exclusive of land and buildings, will be £300,000, and it is to be finished, so as to be available for public traffic by the 1st of August, 1848.—*Mining Journal.*

Providence and Plainfield Railroad.—A movement was made last spring in favor of a railroad from Providence to the Connecticut line, to connect with one to be constructed from that point, via Middletown, to New Haven, and thence to New York, forming, with the aid of the Boston and Providence railroad, already constructed, a complete and uninterrupted railroad communication between Boston and New York. Some progress was made in the collection of statistics, which were found to be highly favorable, and to exhibit a promise of local business which is hardly equalled by any route in New England. The valley of the Pawtuxet river is almost one continuous village, and the travel from the numerous manufacturing towns upon its banks and the transportation for the supply of these establishments, will afford such a local support as few railroads connecting distant points possess.

After resting for a while, this project has again attracted the serious attention of some of our most prominent and enterprizing citizens. A subscription has been opened to defray the expenses of the preliminary survey and the more thorough collection of statistics. The sum required for these purposes, we doubt not, will be readily raised, and the friends of the project will very soon be able to present such an array of facts as will challenge the attention of capitalists.

A zealous effort will be made in the next legislature of Connecticut, on the part of the people of Harttord and other towns along and near the river above Middletown, to procure a repeal of the section authorizing the construction of a bridge at Middletown. Notice of an application to that effect has already been published in the Hartford papers.—Whether it will be successful or not remains to be seen. According to the charter as it now stands, the bridge is to have a draw 80 feet wide, which the Middletown people contend, is all that the interests of commerce require.

RAILROAD IRON.—THE SUBSCRIBER'S New Rail Iron Mill at Phœnixville, Pa., is expected to be ready to go into operation by the 1st of September, and will be capable of turning out 30 to 40 tons or finished Rails per day. They are now prepared to receive orders to that extent, deliverable after the 1st of Octobet next, for heavy rails of any pattern now in use, equal in quality and finish to best imported.

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Valuable Works on Engineering for Sale.

The following works, belonging to the late Wm. R. Casey, have been deposited at this office for sale. It will be seen that they comprise most of the standard books. The reports and non-enumerated pamphlets are however among the best part of the collection, as many of them are not to be found or purchased at any price. So desirable an opportunity seldom offers for securing an excellent set of professional works.

LIST OF ENGINEERING BOOKS BElonging to W. R. Casey, deceased.

1.—The Civil Engineer and Architect's Journal, quarto, vols. 1, 2, 4, 5 and 6, and nos. 79 to 81, and 84 to 95—remaining numbers expected from Montreal, Canada.
2.—Railroad Journal, quarto, vols. 1, 2, 3; octavo, vols. 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 17; octavo vols. 18, and loose nos. to date; being nearly a complete set.
3.—Reports and Documents, 6 or 7 octavo vols.
4.—Tredgold's Carpentry, quarto, with plates.
5.—Barlow on Strength and Stress of Timber, octavo, with plates.
6.—Turnbull on Iron, octavo.
7.—Nicholson's Masonry and Stone Cutting, octavo, with plates.
8.—Tredgold's Tracts on Hydraulics, octavo, with plates.
9.—Gregory's Mathematics for Practical Men, octavo, with plates.
10.—Wood on Railroads, octavo.
11.—Pambour on Locomotives, octavo, with plates, (Philadelphia edition.)
12.—Lecount on Railroads, octavo, with plates.
13.—Smeaton's Tracts, 1796, octavo, with plates.
14.—Seward's New London Bridge, octavo, with plates.
15.—Storrow's Treatise on Water Works, duodecimo.
16.—Report on Atmospheric Railway, etc., quarto, with plates.
17.—Gallier's Price Book and Estimator, octavo.
18.—Public Works of Great Britain, folio, $25.
19.—Weale's Bridges, new and valuable, $23.

☞ The above books will be sold by the single volume, if desired, and forwarded by express, or otherwise, as directed by the purchaser.

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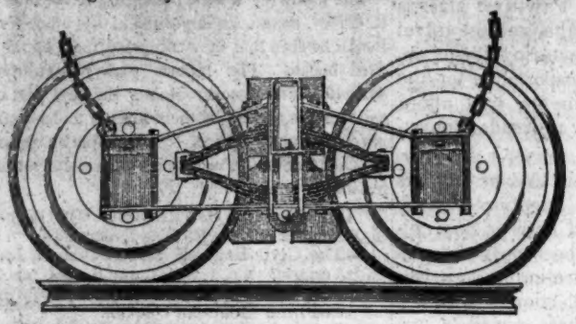
142 Front street, New York.

☞ Orders for the above will be received and promptly attended to at this office. 32 1y

RAY'S EQALIZING RAILWAY TRUCK.—THE SUBSCRIber having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East river, (of which firm the subscriber was late a partner) under the immediate supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846. W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the bes and most economical truck now in use.

[Signed,] WILLIAM ROE, Sup't of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845. [Signed,] G. A. NICOLL, Sup,t Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use. [Signed,] T. L. SMITH,

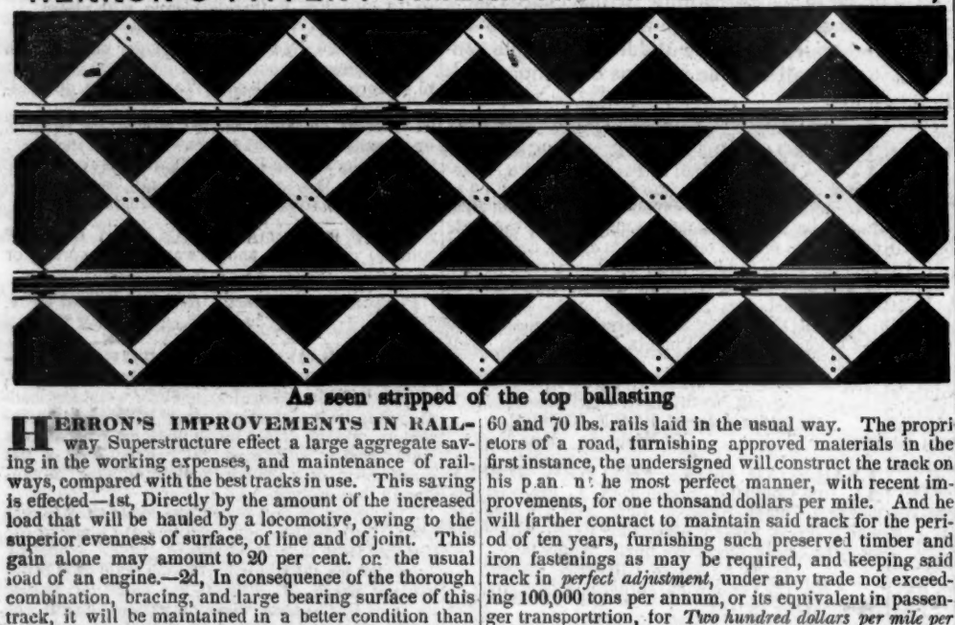
Jersey City, November 4, 1845. N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car.

For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

Long Island Railroad Depot, Jamaica November 12, 1845. } [Signed,] JOHN LEACH, 1y19 Sup't Motive Power.

HERRON'S PATENT AMERICAN RAILWAY TRACK,



As seen stripped of the top ballasting

HERRON'S IMPROVEMENTS IN RAILway Superstructure effect a large aggregate saving in the working expenses, and maintenance of railways, compared with the best tracks in use. This saving is effected—1st, Directly by the amount of the increased load that will be hauled by a locomotive, owing to the superior evenness of surface, of line and of joint. This gain alone may amount to 20 per cent. on the usual load of an engine.—2d, In consequence of the thorough combination, bracing, and large bearing surface of this track, it will be maintained in a better condition than any other track in use, at about one-third the expense.—3d, As action and reaction are equal, a corresponding saving of about two-thirds will be effected in the *wear* and *tear* of the *engines* and *cars*, by the *even surface* and *elastic structure* of the track.—4th, The great security to life, and less liability to accident or damage, should the engine or cars be thrown off the rails.—5th, The absence of jar and vibration, that shake down retaining walls, embankments and bridges.—6th, The great advantage of the high speed that may be safely attained, with ease of motion, reduction of noise, and consequently increased comfort to the traveller.—7th, The really *permanent* and perfect character of the Way, insuring regularity of transit. To which may be added the great increase of travel, that would be induced by the foregoing qualities to augment the revenue of the railroad.

The cost of the Patent track will depend on the quantity and cost of iron and other materials; but it will not exceed, even including the preservation of the timber, the average cost of the tracks on our principal railroads. Generally, the timber structure, fastenings and workmanship, exclusive of the cost of the iron rails, will be from $2,300 to $4,000 per mile. On this structure, rails of from 40 to 50 lbs. per yard, will be equal in effect to 60 and 70 lbs. rails laid in the usual way. The proprietors of a road, furnishing approved materials in the first instance, the undersigned will construct the track on his plan in the most perfect manner, with recent improvements, for one thonsand dollars per mile. And he will farther contract to maintain said track for the period of ten years, furnishing such preserved timber and iron fastenings as may be required, and keeping said track in *perfect adjustment*, under any trade not exceeding 100,000 tons per annum, or its equivalent in passenger transportrtion, for *Two hundred dollars per mile per annum.** To insure the faithful performance of this contract, he will pledge one-fourth of the cost of construction, with the accruing interest thereon, regularly vested, until the completion of the contract. So that a company, by securing payment to the undersigned at the specified period, will have only $750 per mile to pay for the workmanship on the track, without any charge being made for the use of the patent, the subsequent payments, for maintenance of way, and amount withheld, being made from the large margin of profits that will result from its use.

JAMES HERRON.
Civil Engineer and Patentee.
No. 277 *South Tenth St., Philadelphia.*

* A general average of the repairs done on six of the most successful railroads in this country, for a period of from six to eight years' use has been found to exceed $625 per mile per annum, exclusive of renewal of rails. But few roads in this country carry as much as 100,000 tons per annum. When a road exceeds that quantity, the repairs due to the additional tonnage, up to 200,000 tons, will be charged at one mill per ton; over the latter, and not exceeding 300,000 tons, nine-tenths of a mill, etc. Where there are two tracks to maintain, a large reduction upon those rates will be made. 1y1

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

RATES OF ADVERTISING.

One page per annum	$125 00
One column "	50 00
One square "	15 00
One page per month	20 00
One column "	8 00
One square "	2 50
One page, single insertion	8 00
One columnn " "	3 00
One square " "	1 00
Professional notices per annum	5 00

ENGINEERS and MACHINISTS.

THOMAS PROSSER, 28 Platt St. N.Y. (*See Adv.*)
J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (*See Adv.*)
TROY IRON AND NAIL FACTORY, H. Burden, Agent. (*See Adv.*)
ROGERS, KETCHUM AND GROSVENOR, Patterson, N. J. (*See Adv.*)
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (*See Adv.*)
NORRIS, BROTHERS, Philadelphia Pa. (*See adv.*)
KITE'S Patent Safety Beam. (*See Adv.*)
FRENCH & BAIRD, Philadelphia, Pa. (*See Adv.*)
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (*See Adv.*)
ROSS WINANS, Baltimore, Md.
CYRUS ALGER & Co., South Boston Iron Company.
SETH ADAMS, Engineer, South Boston
STILLMAN, ALLEN & Co., N. Y.
JAS. P. ALLAIRE, N. Y.
PHŒNIX FOUNDRY, N. Y.
ANDREW MENEELY, West Troy.
JOHN F. STARR, Philadelphia, Pa.
MERRICK & TOWNE, do.
HINCKLEY & DRURY, Boston.
C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.

RICH & CO'S IMPROVED PATENT SALAMANDER SAFES.

Warranted free from dampness, as well as fire and thief proof.

Particular attention is invited to the following certificates, which speak for themselves:

TEST No. 10.

Certificate from Mr. Silas C. Field, of Vicksburgh, Mississippi.

On the morning of the 14th ult., the store owned and occupied by me in this city, was, with its contents, entirely consumed by fire. My stock of goods consisted of oil, rosin, lard, pork, sugar, molasses, liquors, and other articles of a combustible nature, in the midst of which was one of Rich's Improved Patent Salamander Safes, which I purchased last October of Mr. Isaac Bridge, New Orleans, and which contained my books and papers. This safe was red hot, and did not cool sufficiently to be opened until 16 hours after it was taken from the ruins. At the expiration of that time it was unlocked, when its contents proved to be entirely uninjured, and not even discolored. I deem this test sufficient to show that the high reputation enjoyed by Rich's Safes is well merited. S. C. FIELD.

Vicksburgh, Miss., March 9th, 1846.

Certificate from Judge Battaile, of Benton, Mississippi.

In October last I purchased one of Rich's Improved Salamander Safes, which was in the fire at the burning of my law office, and several adjoining buildings in this place, on the 17th of November last, at about half-past one o'clock A. M. of that day. The building was entirely consumed; and I take pleasure in stating that my papers in said safe were preserved without injury. A receipt book which was in said safe, had the glue drawn out of its leather back by the heat, and the back broken; but the leaves of the book, and the writing thereon, were entirely uninjured; and some of the writing which was of blue ink, was also left wholly uneffaced and not in the least faded. Said safe was by the fire heated perfectly red hot, and I do not hesitate to say, that said safe is a perfect security against fire. But the safe tumbled over during the fire, and being heated red hot, the outer sheeting of the door became pressed in, and the bolts of the lock bent, so that it could not be unlocked, and I had to have it broken open. JOHN BATTAILE.

Benton, Miss., December 27, 1845.

Still other Tests in the Great Fire of July 19, 1845.

The undersigned purchased of A. S. Martin, No. 138½ Water street, one of Rich's Improved Patent Salamander Safes, which was in our store, No. 54 Exchange place. The store was entirely consumed in the great conflagration on the morning of the 19th inst. The safe was taken from the ruins 52 hours after, and on opening it, the books and papers were found entirely uninjured by fire, and only slightly wet—the leather on some of the books was parched by the extreme heat. RICHARDS & CRONKHITE.

New York, 21st July, 1845.

One of Rich's Improved Salamander Safes, which I purchased on the 2d of June last of A. S. Marvin, 138½ Water street, agent for the manufacturer, was exposed to the most intense heat during the late dreadful conflagration. The store which I occupied, No. 46 Broad street, was entirely consumed; the safe fell from the 2d story, about 15 feet, into the cellar, and remained there 14 hours, and when found, I am told, and from its appearance afterwards, should judge that it had been heated to a red heat. On opening it, the books and papers were found not to have been touched by fire. I deem this ordeal sufficient to confirm fully the reputation that Rich's safe has already obtained for preserving its contents against all hazards. (Signed,)

WM. BLOODGOOD.

New York, 21st July, 1845.

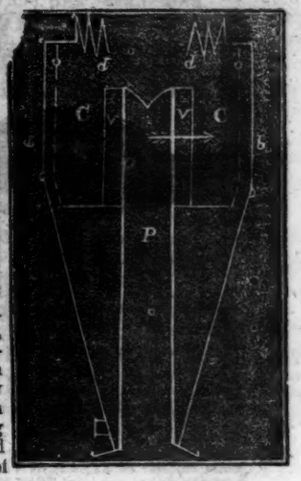
The above safes are finished in the neatest manner, and can be made to order at short notice, of any size and pattern, and fitted to contain plate, jewelry, etc. Prices from $50 to $500 each. For sale by

A. S. MARVIN, General Agent,
138½ Water st., N. Y.

Also by Isaac Bridge 76 Magazine street, New Orleans.

Also by Lewis M Hatch, 120 Meeting street Charleston, S. C. 16 tf

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.



TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendant Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendant Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city or to Hinckly & Drury, Boston, will be promptly executed. FRENCH & BAIRD.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. *Philadelphia, Pa., April 6, 1844.*

*** The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent.*

Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, *Agent.*

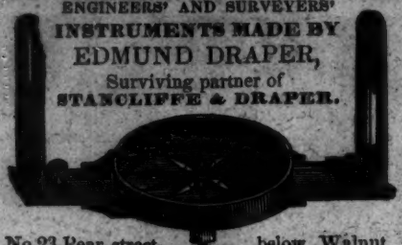
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

*** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

DAVENPORT & BRIDGES CONTINUE to Manufacture to Order, at their Works, in Cambridgeport, Mass., Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country.

Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes. 1y1

ENGINEERS' AND SURVEYERS'
INSTRUMENTS MADE BY
EDMUND DRAPER,
Surviving partner of
STANCLIFFE & DRAPER.



No 23 Pear street, below Walnut,
1y10 near Third, Philadelphia.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ¼ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.

Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse S. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

LAP—WELDED
WROUGHT IRON TUBES
FOR
TUBULAR BOILERS,
FROM 1 1-4 TO 6 INCHES DIAMETER,
and
ANY LENGTH, NOT EXCEEDING 17 FEET.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,
Patentee.
1y25 28 Platt street, New York.

THE SUBSCRIBERS, AGENTS FOR the sale of
Codorus,
Glendon,
Spring Mill and
Valley,
} Pig Iron.

Have now a supply, and respectfully solicit the patronage of persons engaged in the making of Machinery, for which purpose the above makes of Pig Iron are particularly adapted.

They are also sole Agents for Watson's celebrated Fire Bricks and prepared Kaolin or Fire Clay, orders for which are promptly supplied.

SAM'L. KIMBER, & CO.,
59 North Wharves,
Jan. 14, 1846. [1y4] *Philadelphia, Pa.*

PATENT INDESTRUCTIBLE WATER Pipes. The subscribers continue to manufacture the above PIPES, of all the sizes and strength required for City or Country use, and would invite individuals or companies to examine its merits.—This pipe, unlike cast iron and lead, imparts neither color, oxide or taste, being formed of strongly riveted sheet iron, and evenly lined on the inside with hydraulic cement. While in the process of laying, it has a thick covering externally of the same—thus forming nature's own conduit of stone. The iron being thoroughly enclosed on both sides with cement, precludes the possibility of rust or decay, and renders the pipe truly *indestructible*. The prices are less than those of iron or lead. We also manufacture Basons and D. Traps, for Water Closets, on a new principle, which we wish the public to examine at 112 Fulton street, New York.
28tf J. BALL & CO.

ENGLISH PATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.—for sale or imported to order by the subscriber.

These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,
75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwich Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.				HEMPEN ROPES.			CHAINS.		STRENGTH.
Wire gauge number.	Circumference of rope.	Weight per fathom.		Circumference of rope.	Weight per fathom.		Weight per fathom.	Diameter of iron.	Tons.
	INCH.	LBS.	OZ.	INCH.	LBS.	OZ.	LBS.	INCH.	
11	4¼	13	5	10	24	–	50	15-16	20
13	3¼	8	3	8¼	16	–	27	11-16	13¼
14	3¼	6	11	7¼	12	8	17	9-16	10½
15	2¾	5	2	6¼	9	4	13¼	1-2	7¼
16	2¼	4	3	6	8	8	10½	7-16	7

N.B. The working load, with a perpendicular lift, may be taken at 6 cwt. for every lb. weight per fathom, so that a rope weighing 5 lbs. per fathom would safely lift 3360 lbs., and so on in proportion. 1y24

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee G. A. NICOLLS,
ja15 *Reading, Pa.*

TYLER'S PATENT SAFETY SWITCH. The following decision of the Commissioners of Patents is respectfully submitted to Railroad Engineers, Superintendents, and all others interested in the subject.

(COPY.)
UNITED STATES PATENT OFFICE,
Washington City, D. C., April 28th, 1846.

SIR: You are hereby informed that in the case of the interference between your claims and those of Gustavus A. Nicolls, for improvements in safety switches—upon which a hearing was appointed to take place on the 3rd Monday in March, 1846, the question of priority of invention has been decided in your favor. Inclosed is a copy of the decision.—The testimony in the case, is now open to the inspection of those concerned. Yours Respectfully,
EDMUND BURK,
Commissioner of Patents.

To Philos B. Tyler.

Any further information may be obtained by addressing John Pendleton, Agent for the Proprietor 149 Hudson Street, New York. 1m39

TO LOCOMOTIVE AND MARINE ENgine Boiler Builders. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufactured and for sale by
MORRIS TASKER & MORRIS,
Warehouse S. E. corner 3d and Walnut Sts., Philadelphia. 1tf

OFFICE NEW YORK AND ERIE RAILROAD CO.,
45 Wall Street, New York, Aug. 28, 1846.

NOTICE IS HEREBY GIVEN, THAT PROposals will be received until the 13th day of October next, for the Grading, Masonry and Bridging required to complete that portion of the New York and Erie Railroad between a point three miles east of Port Jervis in Orange county, and the village of Binghampton in Broome county, a distance of about 133 miles.

Maps and profiles, estimates and specifications, will be found after the 10th of September in the office of the company, at New York city, where every necessary information will be given. The engineers on the line of the road will also furnish all requisite facilities to contractors desirous of examining the route.

The line will be divided into sections of convenient length for construction, and proposals in writing will be received at the New York office for the whole or any part of the work. By order of the President and Directors.

6t36 T. S. BROWN, Chief Engineer.

NOTICE TO CONTRACTORS.—BOSTON, Concord and Montreal Railroad Company.—This company is now ready to contract for the grading and masonry of said road, or any portion thereof, south of Meredith Bridge, with the exception of two miles immediately north of Merrimack River. They are ready, likewise, to contract for sleepers, and lumber for fencing said road from Concord to Meredith Bridge. Any proposals for grading masonry, sleepers, or fencing, may be left with Theodore French, Esq., Treasurer of said company, at his office in Concord, and it will receive due attention. PETER CLARK, Agent.

Concord, September 2, 1846. 3t39

A. & G. RALSTON & CO., NO. 4 South Front St., Philadelphia, Pa.

Have now on hand, for sale, Railroad Iron, viz:
180 tons 2½ x ½ inch Flat Punched Rails, 20 ft. long.
25 " 2½ x ½ " Flange Iron Rails.
75 " 1 x ½ " Flat Punched Bars for Drafts in Mines. A full assortment of Railroad Spikes, Boat and Ship Spikes. They are prepared to execute orders for every description of Railroad Iron and Fixtures. 1tf

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1¼ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, *Agent*,
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